

A
CONCISE HISTORY
OF THE
HUMAN MUSCLES.

CAREFULLY COMPARED
WITH THE SUBJECT:

COLLATED WITH THE
HISTORIA MUSCULORUM

OF
ALBINUS,
AND WITH THE WORKS OF SEVERAL OTHER
MORE MODERN ANATOMISTS.

INTERSPERSED WITH
OCCASIONAL INSTRUCTIONS,
PARTICULARLY CALCULATED
TO FACILITATE THE LABOURS OF THE
DISSECTOR.

By THOMAS WRIGHT,

Licentiate of the Royal College of Surgeons; and Superintendent
of the Dissecting Pupils to the same.

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1791.

CONCISE HISTORY

THE NEW MUSCLES

WILLIAM M. MULLORUM

AND WITH THE WORKS OF SEVERAL OTHER
WELL KNOWN AMATEURS.

YOUNG AMERICAN INSTITUTION

THE FOLLOWING SUBJECTS ARE
THE SUBJECTS OF THE

THE NEW MUSCLES

OF AMERICAN INSTITUTIONS

THE NEW MUSCLES

THE NEW MUSCLES

369556

T O

WILLIAM DEASE, Esq.

SIR,

YOU will believe the liberty I take of begging your patronage for the following publication, to be the result of the gratitude and respect I feel in common with my associates, for the Founder of the Irish School of Anatomy and Surgery: an institution, which considering the benefits resulting to the community; the

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bounty with which you have so generously contributed to procure those benefits ; and the knowledge diffused by your public Lectures, and private Instructions ; must be esteemed an object of as great national importance, as it is of private and professional utility to its immediate objects.

It must excite the exultation of the Philanthropist to observe in this country, the evolution of mental faculties, which has attended the manumission of the Citizens ; it was national liberty which gave birth to the Royal College of Surgeons : yet, whether it be owing to inattention, or ignorance of the true interests of Society, that useful body of men, the Surgeons, who are essential to the constitution of both Army and Navy ; who are recognized by statute law as ministers of public benevolence, in every county and city in the kingdom ; who
with

with uniform humanity have for centuries extended a healing hand to the infirmities of the Legislator, or of his slave; and who in France have for years formed a Royal Academy; and with more propriety have been distinguished by degrees conferred in Surgery at the Universities of Vienna and Turin; in this Nation have barely preserved a languid existence, by a participation of the narrow municipal privileges of mere artizans, unsuited to the pursuits of men, who must, if they attain excellence in their profession, be found Philosophers, and have the book of Nature and of Science perpetually open to their contemplation.

This, Sir, I know to be your enlarged prospect of the interests of a profession, which in this country required the utmost exertions of your abilities, joined to your liberality of sentiment;

sentiment ; ere it could attain the respectability it has acquired ; and which that you may live to see augmented and matured, is the warmest wish of,

Your most obedient,

And humble Servant,

T. WRIGHT.

Great Ship-street,
1791.

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E R R A T A

THE Reader is requested to correct any literal omissions which occur in the course of the work.

The following Errors affect the Sense:

- Page 82 line 8, *for* spinous *read* transverse.
— 110 line 6, *add*, See Levator Palati Mollis.
— 121 line 4, *for* processes *read* process.
— 122 line the last except three, after Internus *add* Major.
— 127 line 10, *for* it is *read* they are.
— 127 line 13, *read*, Use.—To retract the Ear, and stretch the Concha.
— 139 line 2, *for* inverted *read* everted.
— 179 line 5, *for* Abductor *read* Adductor.
— 192 line 12, *for* Abductor *read* Adductor.

I H. R. Reader is requested to correct
any literal omissions, which occur in
course of the work.

The following Errors are the result

Page 33 line 8. For "inuous" read "inuous"
— 110 line 5, and 111 line 10. For "inuous"
read "inuous".

— 111 line 10. For "inuous" read "inuous".
— 111 line 10. For "inuous" read "inuous".

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A

CONCISE HISTORY

OF THE

HUMAN MUSCLES.

Of the Muscles.

THE Muscles are the moving powers in the bodies of animals.

They are of two kinds, viz. the Rectilinear, and the Hollow.

The Rectilinear Muscles are composed of two parts; the muscular, fleshy, or active portion, formed of fasciculi of fibres, commonly of a red colour, called *Fibræ motrices*, endued with irritability; and the white tendinous part, called also Aponeurosis, which is passive.

The Hollow Muscles have no tendons or tendinous expansions, but are wholly made up of annular fleshy fibres.

B

The

The Rectilineal are generally *Voluntary Muscles*, that is to say, they obey the influence of the mind, called *Volition*, or *Vis Nervosa*.

The Hollow Muscles, are not under the dominion of the Will, and are therefore called *Involuntary Muscles*, as the Heart; or they are but imperfectly influenced thereby, and then afford instances of *Mixed Motion*.

The Rectilineal Muscles are usually attached to bones, which are the Levers to be acted on. That end of the Muscle which adheres to the more fixed part is called the *Origin*; that which is attached to the more moveable part is the *Insertion*; the intermediate muscular portion, is the *Belly*; and if there are two bellies with an Intertendination, the Muscle is *Digastric*.

The Muscles are all invested with cellular membrane, which is called *Membrana communis Musculorum*. Frequently they are surrounded by Aponeurosis, from which the muscular fibres sometimes arise.

Leeuwenhoeck, who examined the structure of the Muscles by his glasses, declared, that they were composed of diminishing series of Fasciculi, and that he could not attain the primitive or elementary fibres, of which

which the primitive fasciculi were composed. Geo. Prochaska, Prof. Anat. at Prague, observed, that the ultimate fasciculi, into which he could reduce the Muscles, were marked with white transverse ridges. Fontana prosecuted the inspection still farther, and found the primitive fleshy fasciculi to be composed of some hundreds of fibrils; these again he examined with a glass $\frac{1}{90}$ inch focus, but could never perceive that those elementary fibrils, were perfectly similar to the nervous and tendinous elementary fibrils. He corroborates the observation of Prochaska, by alledging that he found the *transverse ridges*; and adds, that they were curvilinear, semicircular, uniform, and uninterrupted. He also agrees with Monro, Jun. in asserting, that every fasciculus and fibre, appeared to be composed of winding or tortuous fibrils, of extreme minuteness, which he afterwards ascertained to be a sheath of cellular texture. And when he succeeded by means of a cutting needle, in depriving the primitive fibrils of their sheaths, he discovered that those primitive fibrils, were not constituted of wavy or tortuous fibrils, as they appeared while invested by those sheaths; but were marked with transverse ridges, like so many diaphragms;

phragms; that they were so many solid cylinders, equal among themselves, and their segments equal; but as to these segments intercepted by the diaphragms, though in some lights they appeared globular, he could never ascertain this point. He sometimes had cause to surmise, that these appearances were produced by the contraction of the cylinders into wrinkles, as formerly noted by Prochaska, and found that these appearances were observable as well at the eve of putrefaction, as immediately after death.

Of Tendons.

A TENDON is a strong, white, inelastic and insensible chord; called Aponeurosis when it is spread into a broad, thin membrane: it is an appendage of a rectilineal muscle, attached to its extremity, and forming a mean of union with distant parts. The muscular fibres are inserted into the tendon, in a penniform, radiated, or other form. Few Muscles have Tendons except where they are inserted into bones, and their surfaces

surfaces are generally tendinous where they are moved over bones, or where they are in contact with each other during motion. Where a Tendon is moved on a bone it is enclosed in an aponeurotic sheath, which is firmly connected to the bone, and within the sheath is placed a smooth, glary, extremely soft cellular texture, called *Bursa Mucosa*. Many of these *Bursæ Mucosæ* are formed within the aponeurotic investments of the Tendons of the Tarsus, and Carpus, called *Annular Ligaments*.

When the Aponeurosis is more extensive, so as to cover the Muscles of a limb, as in the thigh, it is denominated *Fascia Lata*.

Tendons are very sparingly supplied with blood-vessels and nerves. Albinus was of opinion that they had no sanguiferous vessels; but they certainly become red when inflamed.

Nerves have never been traced into the substance of tendons.

Tendons, when subjected to the microscope, appeared to be composed of fasciculi of longitudinal fibres, connected by cellular substance. These Fontana has denominated as in the Muscles, *Primitive Fasciculi*: because they are not composed of smaller

smaller fasciculi ; but of fibrils which are the primitive tendinous Cylinders, and indivisible into smaller orders : these Cylinders are not vascular, nor hollow ; they are more minute than the primitive nervous Cylinders ; extend the whole length of the Tendon ; and are connected by a very minute cellular tissue : they are so like as to be difficultly distinguished from the nervous Cylinders.

The elementary nervous Cylinders, are found by Fontana to be transparent, filled with a mucous substance, and more gross than the primitive muscular, and tendinous Cylinders ; so that by an accurate observer they cannot be confounded. The discrimination of the tendinous from the fleshy fibres may also be certainly made, though both are solid ; as the former proceed in a serpentine course, which has not been ascertained in the muscular fibrils : and the tendinous fibrils never alter in their diameters, form, or route ; whereas the muscular appear interrupted at very short distances by Crispations and Noduli.

These characteristics once known, says Fontana, those three kinds of elementary fibrils, can never be mistaken one for another : as he himself has often taken occasion

sion to convince others ; by allowing ever so small particles of each, to be submitted to his microscope, he instantly descried the difference, and distinguished the kind.

On the most accurate observation, Fontana has found that the muscular fibres are not continued into the tendinous, as he never could discover one primitive muscular fibril to become tendinous, but on the contrary, always to continue muscular, and to terminate so. The mode of compenetration observed between these two kinds of fibrils by that expert Naturalist, is, that the tendinous cylinders pass in between the muscular, as the teeth of one wheel roll in between the teeth of another.

Of the Blood-vessels of the Muscles.

THE Muscles are profusely supplied with arteries, which dividing on their surfaces, some branches are continued within the cellular texture, while the others insinuate between the fasciculi, and separate into innumerable ramifications. To these and the returning sanguiferous veins, which are supposed

posed to be more numerous, and of somewhat greater diameters; the red colour of the Muscles is to be attributed: for by injection of a great quantity of water into the arteries, this colour may be washed away; or by retaining the Muscles long macerating in water, which dissolves the red globules of the blood: while on the other hand; a fortunate injection of a red fluid changes the whole mass so blanch'd, into an appearance perfectly similar to the coloured matter injected; which circumstances led to the conclusion, that the muscular fibres were continuations of the sanguiferous arteries. On which subject it may not be amiss to quote Fontana, no other writer having supplied us with facts, on which we dare form an opinion.

The primitive nervous Cylinder, says this curious Physician; is about three times the diameter of the ultimate red vessel: this again is about four times the diameter of a primitive muscular fibril: so that the primitive nervous fibril, is about twelve times more gross than the primitive fleshy fibril: and when the primitive muscular fasciculi are closely inspected, scarcely can the observer assert, that he sees red vessels there; and he is constrained to remain uncertain

uncertain as to their existence: for it is absolutely impossible to see in any circumstances, either nerve or vessel passing to the elementary muscular fibrils; and if either subsisted between them, they could not appear in contact; whereas they are perfectly close through their whole length: and as by the interposition of red vessels, their distances would be four times greater than their diameters; and twelve times by the intervention of nervous cylinders; these then would be much more evident by means of glasses, than the fleshy fibres, which are of much smaller size; which is not found to be the case; as there is neither intervening blood-vessel or nerve to be seen, and scarcely can there be discerned a little very fine cellular texture, or glutinous principle, which ties them together.

It therefore appeared to Fontana, that a Muscle is composed; the greatest part or quantity, of fleshy fibrils; a mean or middle quantity, of red vessels; and the smallest quantity, of nervous fibrils, exclusive of lymphatics and cellular texture.

Of

Of the Lymphatics of Muscles.

THOUGH the number of muscular Lymphatics as yet discovered is but trifling, yet the existence of them is not to be doubted; in the heart they have been demonstrated by several. Meckel has found them in abundance in the cellular membrane, surrounding and separating the muscular fasciculi in the extremities; and their effect, absorption, has rendered their presence perfectly certain in all the solids of the body.

Of the Nerves of Muscles.

THE greatest part by far of the vertebral Nerves, are expended on the Muscles of the trunk, and extremities: and it is strikingly remarkable that the largest of the Viscera, as the Liver, receives no more Nerves, than one of the smallest Muscles. It is also observable that the number and size of the Nerves, are proportioned to the number and size of the Muscles to which they

they apertain; and the larger these Nerves are in general, the firmer their consistence, a circumstance which depends on the presence of their Tunics; for so soon as they enter the substance of a Muscle, these Tunics are discontinued, and the Nerves become thenceforth so soft and pulpy, that they can be prosecuted no farther, by dissection in the common mode.

The Cellular Membrane of Muscles,

HAS been frequently noticed above, therefore there needs no repetition of its properties here.

Of the Vis Insita, or Irritability of Muscles.

MUSCULAR Motion, exclusive of the mechanical construction of the parts destined to produce it, is effected by an eminent power of contraction, resident in the muscular fibres only, and therefore called by
Haller,

Haller, the discoverer of this remarkable property, *Vis Insita*.

This power is rendered evident by the application of stimuli, whether chemical or mechanical; which instantly excite a correspondent contraction, which is succeeded by a relaxation of the Muscle.

It is presumed that Irritability exists in animals, independent of the Sensorium or Nerves; as,

It is most evident in the muscular fibres when separated from their communication with the Sensorium; as,

It is more evident in warm animals after death than before; as,

It is more observable still in cold animals in the same circumstances; as,

It is particularly evident in brainless animals, and in plants, during life.

In more perfect animals, in the heart, which acts strongly and perpetually for years, or a century, without the consent of the Will; and,

In the heart of the same, which cannot be excited by stimulants applied to the cardiac nerves, though it may readily be put in motion by irritating the muscular fibres.

Electricity, Heat, Puncture, acrid Liquids, and the *Vis Nervosa*, have been found

found to excite Irritability : as the former are confessedly Stimuli, possibly the last may be so.

I dare not venture to assert, that the Nerve is the conductor of the Simulacrum, which excites the Idea; or of the correspondent Volition, which excites the Vis Infita. There is, however, somewhat very different in the conducting power of the Nerve, and the irritability of the muscular fibre; and consequently great dissimilarity between Sensation and Action, or that species of it called Muscular Motion.

However muscular motion may be effected, it is a fact not to be controverted, that the muscular fibre contracts while in motion, and that the belly of the Muscle swells while in action. It is also admitted, that the Nerves are essential to the perpetuity of muscular motion, as Volition totally ceases when the communication with the Sensorium, by the medium of the Nerves, is interrupted by Ligature, or destroyed by Incision. The continuity with the Blood-vessels is also necessary, as may be readily ascertained in the same way.

Of Myological Nomenclature.

LYCUS, or LUPUS, was, according to Galen, the first who treated professedly on the Muscles; he was the discoverer of many. Galen also cites Marinus, and Rufus the Ephesian, among the numbers who contributed to perfect Myology. The names imposed by the last are continued to the present time.

Galen and his Translators, as well as Commentators, were not sufficiently impressed with the utility of an expressive Nomenclature, in this part of Anatomy; and they have very much neglected it, notwithstanding the good example before them.

Vesalius, sensible of the necessity of this desideratum, applied numerical terms to most of the Muscles; which tended to confuse the learner, as so many different parts bore the same name, or number. Sylvius, a Professor at the Royal College of France, remedied this defect in part; by supplying Greek names, still retained. And Riolanus nearly compleated this desirable and useful work.

Winflow

Winslow, and after him the French Anatomists, have contented themselves with a translation, or rather corruption, of the ancient Greek names. But the German and English Anatomists, have retained and still use the Greek names; which are certainly much more intelligible to persons who understand that language, and supplies common terms to both nations.

Albinus changed some of the *Sesquipedalia Verba* for more simple terms; and his great and unparalleled accuracy has approved his terms, so that they are at this day, with very few exceptions received, as he left them; and though others have since substituted a few names, yet as he is in *Myology* the best authority, and the most universally consulted, posterity is of necessity bound to retain his *Nomenclature* as a key to his works.

Names should certainly be concise memorials of the most striking properties of the things they represent; and to avoid the confusion arising from sameness of name and character in many objects, Anatomists are constrained to call Muscles by various terms, derived from their uses; as *Abductor*, *Accelerator*, &c. or from their relative situations; as *Sublimis*, *Profundus*, &c.

or, from the part on which they are situated; as Anconeus, Brachialis, &c. from similitude of shape with some common object; as Cucullaris, Deltoides, &c. from the origin and insertion of the Muscle; as Coracobrachialis, Cleidomastoideus, &c. from the number of bellies, as Digastric; of heads, as Biceps, &c. from the course of the Muscle; as Circumflexus, Obliquus, &c. from the ratio of magnitude; as Longissimus, Latissimus, Vastus, &c. from the circumstance of being single; as Azygos.

Of the Order of Dissecting the Muscles.

A PERFECT treatise of Myology, in which is contained all the Muscles of the Body, is a Solecism in nature. To give a proper idea of the Muscles, the Anatomist should not only exhibit and describe them, but their relative situations; thus may the mind of the Tyro, not only be informed that such parts exist, but why they exist; as he sees the uses to which they are subservient, in the preservation of their connections.

tions. Such a mode is natural, therefore preferable to any other, and offers the professor the only method of demonstration which he can properly avail himself of, viz. a description of all the parts, members, and relations of a part, which present at the same instant. As for example, in the Anatomy of the Eye; the Muscles of the Supercilia, Palpebræ, and Globe, should be described with that organ; or the Student, who from recollection is capable of combining these circumstances, must possess a share of acuteness not very common, and which it would be absurd to presuppose.

The muscles of the lips, tongue, os hyoides, larynx, and uvula, should properly be mentioned in treating of respiration and the voice: of the ear, in treating of that organ: of the Pharynx, Maxilla inferior, and a few Muscles already cited; in giving the physiology of digestion, &c. &c. and scarcely is there a necessity for mentioning, that unless this rule is observed, many unconnected and imperfect repetitions must ensue.

It has been usual to arrange the Muscles without any regard to these considerations; therefore with a method totally useless to the practical Anatomist: whereas the contrary

trary has always obtained in dissection; which from necessity commences with the Muscles of the Abdomen, which are those most liable to putrefaction.

And though necessity dictates, that no more parts should be uncovered than can be disposed of at once, yet in the dissection of the succeeding Muscles, it has been customary to neglect the very principle with which the business commenced; the Psoæ, Quadrati Lumborum, Latissimi Dorsi, Levatores Ani, &c. are all exposed, and then must become putrid; the quantity of cellular texture which surrounds the Sphincter Ani, Acceleratores, Transversi, and Erectores, in general contains so much moisture, that they usually become flabby, putrescent, and very difficult to dissect before they are uncovered; while the Muscles of the Thorax, and particularly of the Neck, are among those which being lightly covered, are in the highest preservation, and may be resorted to with a certainty of success, at a time when the spinal, coccygeal, and perineal Muscles, will not bear knife or forceps.

These observations are practical, and such as the subject must have suggested to every Anatomist;

Anatomist ; as such I shall not scruple to avail myself of the benefit to be deduced from them, in the following sheets.

Where subjects can be obtained in sufficient number, there may be great propriety in dedicating a different one to each department in Anatomy : One must be given up to the Muscles ; yet if the dissector can accomplish more, he would do well to preserve the nerves and arterical trunks, which will cost him very little additional trouble ; and scarcely need he cut a branch across, for the purpose of exhibiting the Muscles more perfectly, except possibly in the neck, palm, or sole.

However, could the industry and art of the dissector effect it, the true excellence of the Anatomist consists in preserving all the parts in their relative situations ; it is this only which renders the anatomical plates of Haller, and some other Germans, the most excellent in their kind, and the most perfect models for the imitation of young Anatomists.

C H A P. I.

OF THE

MUSCLES *of the* ABDOMEN.

THAT space which lies between the Zyphoid Cartilage, the Cartilages of the Ribs, the Iliac and Pubic, is occupied by the Abdominal Muscles and common Integuments, forming the Parietes of the Cavity of the Abdomen.

The Muscles are ten in number; three broad and thin, forming so many layers at each side of the Recti Muscles, which lie between, and are situated perpendicularly: The Pyramidales are situated immediately above the Symphysis Pubis.

Obliquus externus Abdominis.

ARISES by eight digitations, from the external surfaces and edges of as many inferior ribs a little beyond their cartilages, and sometimes

times by a ninth from the 4th rib; and the digitations alternate in a serrated form, with those of the Serratus major anticus; generally cohere to the Pectoralis Major, Intercostals, and Latissimus Dorsi; which last covers the posterior edge of the Obliquus, extended from the last rib to the Spine of the Ilium: from the five superior origins, the fibres run obliquely forwards and downwards, to terminate in an Aponeurosis; which near its margin is consolidated by implication of fibres, with the Aponeuroses of the other broad Muscles; into a common tendinous line, called *Linea Semilunaris*: beyond which the fibres are still continued in their original direction, decussated by those of its fellow; and from a reunion, of all the same Aponeuroses, are formed a middle division between the Recti Muscles, extended from the Cartilago Zypoides, where it is broadest, to the Synchondrosis of the Pubes; this division is denominated *Linea Alba*; it is, about the middle, pierced by the Funis Umbilicalis in the Fœtus, the place of which becomes the Umbilicus after birth: the under part of the Aponeurosis divides into two columns stretched between the Ilium and Pubis, which leave an oval fissure, with thick margins between them, named the
Ring

Ring of the external oblique Muscle; for the passage of the Cremaster Muscle, and Spermatic Chord in males, in whom it is larger, which renders them more subject to Bubonocoele than females, in whom it is smaller and pierced by the round Ligament of the Uterus: the anterior superior column of the ring passes over the Synchondrosis, and is fixed to the farther Os Pubis; the other is fixed to the Os Pubis of the same side.

The lower digitations of the Obliquus Externus, are inserted tendinous and fleshy into the anterior half of the Spine of the Ilium; from the anterior superior spinous process, of which is stretched, a Tendon to the Os Pubis, named Fallopius's Ligament, or the Inguinal Ligament; from which an Aponeurotic expansion descends to the Fascia Lata of the thigh; the space under which is larger in women, as is the Pelvis, and renders them more liable to Crural Hernia; in which the intestine descends beneath the ligament in the course of the Psoæ Magni, and Iliaci, Muscles; and of the crural Arteries, Veins, Nerves, &c. The uses are to support and compress the Peritonæum and Abdominal Viscera; to assist the evacuations with
the

the Diaphragm, &c. as congeneres : and act as antagonist to the Muscles of respiration in expiration : to bend the body to a side when one acts ; forward when both act ; and to raise the Pelvis when the Thorax is fixed.

In raising this Muscle it is proper to begin at the posterior fleshy edge, which is very substantial, and ends abruptly over the next ; taking great care to avoid cutting through the very thin Aponeurosis of the Obliquus Internus, above the Umbilicus.

Obliquus internus Abdominis.

ARISES, by a double Aponeurosis presently conjoined ; in the interstice of which are contained the Extensors of the Back ; from the three inferior lumbar, and all the sacral spinous processes ; also, from the transverse processes of the same three Lumbar Vertebrae, and by the same Aponeurosis continued, from the posterior superior spinous process of the Ilium and its Spine ; presently becomes fleshy, in which form it attains the anterior superior spinous process, where the Obliquus Externus is
adherent

adherent to it, and the Cremaster arises; the fibres of the fleshy portion are from thence disposed in a radiated manner; the hindmost ascending to be inserted into the two inferior ribs, with their Cartilages; and into that of a third: the fibres next in order decline more and more, until they pass downwards to the forepart of the Pubes, in which last direction they are pierced by the Spermatic Chord, and give rise to the Cremaster which invests it; these muscular fibres cross those of the Obliquus Externus; and terminate by an obliquely situated line, from the ninth rib to the Pubes, in an Aponeurosis; which, from midway between the Umbilicus and Pubes, to the Zyphoid Cartilage, divides into two layers; the exterior is entire, and adherent to the Aponeurosis of the Obliquus Externus; the interior and partial layer adheres to that of the Transversalis; thus, by both a sheath is formed, including the Rectus Muscle; to the three intertendinations of which this sheath is firmly connected, and by the meeting of its layers, terminates at the Linea Alba, Cartilago Zyphoides, and Cartilages of the 7th, 8th, and 9th Ribs; where the superior portion of the Aponeurosis is so thin, that inexperienced

perienced Anatomists usually cut through it in raising the former.

The sheath may be most evidently demonstrated by cutting through the anterior Lamina, close to the Linea Alba; which brings the Rectus of that side in view: but the discontinuation of the posterior Lamina may be best discerned, when this Muscle is raised from the Transversus Abdominis. It is to be noted, that the belly of the Obliquus Internus is placed inferiorly; that of the Externus, superiorly. The uses are; to act as antagonist to the Obliquus Externus of the same side, in bending the body; but in all other actions they are Congeneres: this, however, more evidently retracts and divaricates the false ribs.

Transversus Abdominis.

ARISES fleshy from the interior part of the Cartilages of the seven lower Ribs, by an Aponeurosis from the whole bony edge of the twelfth Rib; and from the transverse processes of the inferior Dorsal, and four superior Lumbar Vertebrae, in
D common

common with the Serratus inferior posticus, and Obliquus Internus; from thence it proceeds fleshy along the Costa to the anterior superior Spinous Process of the Ilium: and in conjunction with the Obliquus Externus to the Pubes; the Spermatic Chord, or round Ligament, &c. pass under the edge of it. At the upper part, and within the margin of the Thorax, this Muscle is continuous with the Triangularis Sterni, and connected by several Intercostal Fasciculi, with the Diaphragm. The muscular fibres pass on transversely, and terminate in an Aponeurosis which is inserted into the Cartilago Zypoides, and Linea Alba, in conjunction with the posterior layer of the sheath for the Rectus: where this layer is discontinued below the Umbilicus, it is lost in the Obliquus Externus. In all its expansion it is adherent to the Peritonæum.

The uses are the same as of the Obliquus Externus.

Rectus Abdominis.

ARISES by two tendinous heads from the fore and upper part of the Os Pubis, and ligaments of the Synchondrosis: it runs upwards

upwards in form of a flat band; the whole length of, and parallel to the Linea Alba; in which course it is crossed by three Inter-tendinations; one at the margin of the Thorax, one at the Navel; and an intermediate one: sometimes also a partial one below the Umbilicus, which are all firmly adherent to the anterior layer of the sheath; but loosely to the posterior layer.

Inserted into the Cartilages of the three inferior true Ribs, and extremity of the Sternum; it transmits some fibres to the Pectoralis, and admits of *Lusi Naturæ*, as it has been seen to terminate high upon the Thorax.

Use.—By its adhesions it serves as a Tendon to the Obliqui: and, in all motions they are Congeneres, except that this does not rotate the Thorax on the Loins.

Pyramidalis.

ARISES by a broad base from the ligaments of the Synchrondrosis Pubis, above the Rectus, and within the sheath, taper-

ing upwards to a point.—It is inserted into the Linea Alba, and inner edge of the Rectus; sometimes at a higher or lower point, but always below the Navel: frequently one or both may be absent.

Use.—Fallopious asserted, that it supplied the defect in the Obliquus Internus: later Anatomists have called it a Congener of the Rectus.

C H A P. II.

OF THE
MALE SEXUAL MUSCLES.*Muscles of the Testes.*

EACH Testis has a Muscle proper to it, called the

Cremaster.

It arises partly from the Obliquus Internus, a few fibres of which are detached for the purpose ; partly in common with it from the anterior superior spinous process of the Ilium : it descends surrounding the Spermatic Chord over the Testis ; the fibres separating as they pass down, are lost in the cellular membrane of the Scrotum.

Uses.—To compress, elevate, and evacuate the Testis.

Muscles of the Penis.

SEVERAL of the Muscles of the Penis are common to it and the Anus: as the Transversus Perinæi, Transversus Perinæi Alter, and Levator Ani, or that part of it called Crompressor Prostatae, by Albinus.

The proper Muscles are, Erector Penis, and Accelerator Urinæ, all in pairs.

Erector Penis.

ARISES tendinous and fleshy from the inner side of the tuberosity of the Ischium, beneath the origin of the Crus Penis: runs upwards, encreasing in breadth, and embracing the whole crus of the Penis.—It is attached to the strong Aponeurotic Involucrum, which covers the Corpora Cavernosa Penis, as far up as the Union of the Crura.

Use.

Use.—It is by some supposed to compress and erect the Penis ; by others, to draw it down from the Pubes, and retain it horizontally.

Ischio Cavernosus.—*Wins.*

Accelerator Urinæ, seu, Ejaculator Seminis.

OF either side, is a flat thin fleshy layer, arising from the Spinctor Ani, and membranous part of the Urethra ; but tendinous, immediately becoming fleshy, from the Crus and beginning of the Corpus Cavernosum Penis : the posterior fibres run transversely ; the anterior extended along the sides of the Urethra in a forked form, proceed backwards to meet in a common tendinous line, placed longitudinally on the middle of the Bulb of the Urethra, which they enclose.

Use.—To propel the Urine or Semen forwards ; and by compressing, to distend the Corpus Spongiosum, and Glans, with blood.

Bulbo Cavernosus.—*W.*

Trans-

Transversus Perinæi.

Is a very small Muscle, which arises from the tough, fatty membrane that covers the inside of the tuber of the Ischium, close to the Erector Penis: from thence it runs obliquely, as the Erector; but more transversely inward, to be inserted into the Accelerator Urinæ, and that part of the Sphincter Ani which is connected to it.

Use.—To dilate the bulb, and draw the Perinæum and verge of the Anus, a little outwards and backwards. It is subject to variety in form.

Transversus Urethræ.—*Wins.*

Not unfrequently there is a second *Transversus*, named

Transversus alter Perinæi.

It arises nearer to the Pubis than the former; and has the same direction, insertion, and use. This Muscle is commonly cut across in dissection.

The

The Transversi of both sides send fibres across which run into each other.

Prostaticus Inferior.—*Wins.*

Compressor Prostatæ.

See Levator Ani.

CHAP.

C H A P. III.

OF THE
MUSCLES *of the* ANUS.

SOME are common to the Anus and Penis, (which see in the preceding Chapter) and so is the Lavator Ani, and the Sphincter Ani in some measure.

Sphincter Ani.

Is single, hollow, and lies in an oval form within the skin and fat which surrounds the verge of the Anus: by the posterior extremity it is connected to a ligament which descends from the Coccyx: the anterior extremity is connected by implication, with the Acceleratores Urinæ, and Transversi.

Sphincter Ani Internus,

Is a superior portion of the Sphincter Ani Externus.

The

The former is the Sphincter Cutaneus.

The latter, the Sphincter Intestinalis, or Orbiculis of *Wins.*

In women, a considerable portion of the Sphincter Vaginæ is derived from the Sphincter Ani.

Levator Ani.

ARISES by a semicircular edge from the lower part of the Synchondrosis Pubis, rising backwards above the Foramen Thyroideum, and from the Aponeurosis which covers the Obturator Internus and Coccygæus Muscles, as far as the acute process of the Ischium. The fibres run down like rays from the circumference, to meet those of its fellow; by which means, and by the insertion of these Muscles into the Os Coccygis, and Sphincter Ani, around the extremity of the rectum, into the neck of the Bladder, prostate Gland, and part of the Vesiculæ Seminales, a kind of Diaphragm is formed.

Use.—To sustain the Rectum, and prevent a Prolapsus during the evacuation of the Fæces; to retract it after: to support the

the Viscera of the Pelvis : and to assist in ejecting the Semen.

The lower part of this Muscle, which arises from the Os Pubis, is divided from the upper : and called,

By Albinus—Compressor Prostatae.

By Winslow—Prostaticus Superior.

See, also, the *Muscles of the Os Coccygis*.

C H A P. IV.
OF THE
FEMALE SEXUAL MUSCLES.

Erector Clitoridis.

IN every respect the same as the Erector Penis, but smaller; and inserted in the same manner into the Crura Clitoridis.

Ischio Cavernosus.—*Wins.*

First Muscle of the Clitoris.—*Doug.*

Sphincter Vaginæ.

A SMALL hollow Muscle, which surrounds the Corpus Cavernosum Vaginæ, at its entrance, retaining the same oval form. At its lower extremity, it receives a considerable addition from the Sphincter Ani: at its upper, it passes behind the Nymphæ, and is attached to the union of the Crura Clitoridis.

Use.—To contract the mouth of the Vagina, and by compressing the Corpus
E Caver-

Cavernosum, to push the blood into the Clitoris and Nymphæ.

Constrictor Cunni.—*Alb.*

Second Muscle of the Clitoris.—*Doug.*

The same of—*Wins.*

Transversus Perinæi, as in Males.

Transversus alter Perinæi, has been observed by Albinus, to terminate on the Corpus Cavernosum Vaginæ.

Sphincter Ani.

See the description of that Muscle in Males.

Levator Ani.

In its progress to the Rectum, embraces the Vagina, and is partly inserted into it. It is also narrower, by a want of that part which arises near the Synchronosis Pubis, in Males.

See the Muscles of the Coccyx.

CHAP.

C H A P. V.
OF THE
VESICA URINARIA.

THE Bladder, by modern Anatomists, is generally described to be composed of two coats; the external, or muscular; and the internal, or membranous.

Detrusor Urinae,

HAS been commonly considered as a composition of muscular fibres, decussating each other in various directions, and collecting in greater number at the neck of the Bladder, to form the

Sphincter Vesicae.

THE description, however, of Dr. Douglas, has been revived in a most accurate and ingenious Compendium, by Ferdinand Liber, of Vienna; it may not, therefore, be improper to repeat his account of these parts.

Detrusor Urinæ.

Is formed of two sets of fibres; the longitudinal * arise from the Pubes, ascend anteriorly; pass over the Fundus of the Bladder, and down the posterior part to the Prostate. The other Fibres are either † transverse or oblique, and arise from the Prostate.

Use. — The longitudinal, draw down the Bladder to the Neck; the other Fibres contract it transversely: by both, the cavity is diminished.

Sphincter Vesicæ.

CONSISTS of a band of Fibres detached from the Sphincter Ani, in Males; from the Sphincter Vaginæ, in Females; and surround the neck of the Bladder, which they contract.

* Pilearis of Dr. Douglas.

† Transversalis of the same.

C H A P. VI.

OF THE
MUSCLES *of the* OS COCCYGIS.*Coccygeus.*

ARISES by a tendinous and fleshy point from the acute process of the Ischium, immediately adjoining the Levator Ani, of which it is a portion; gradually increases in breadth as it traverses the inside of the posterior Sacro-Sciatic Ligament. To be inserted, by its broad extremity, into the lower part of the Sacrum; and the whole length of the Os Coccygis laterally.

Use.—To move the Os Coccygis forwards, and probably to move the Rectum when distended.

Coccygeus posterior; or, Sacro, Coccygeus.—Wins.

Curvator Coccygis.

A SMALL Muscle so called by Albinus, and found in few subjects, attached to the side of the Coccyx from one bone to another.

According to Albinus, it serves to bend the lower joint laterally; but forward, according to Leber.

A ligament most commonly supplies its place.

N. B. The necessity of proceeding with convenient expedition in dissection, interferes with the order of Nature so far; that the practical Anatomist is compelled, to assume a method of demonstrating the parts, irregular in appearance, but essential as to expedition.

Before the Muscles of the Pelvis, which are now supposed to be partly exposed, can be dissected; the broad Muscles on the Back, which conceal them, must be removed; but as they, or some of them, appertain to parts not only distant, but distinct; it appears proper to recur to the natural order of things, which helps the recollection materially, and usefully.

Muscles

*Muscles which move the Bones of the Shoulder
on the Trunk.*

Of these Muscles some are inserted into the Bones of the Shoulder, viz. the Scapula, and Clavicle: others move these bones on the Trunk, without being fixed to them.

Of the former description are the

Cucullaris.

Rhomboideus.

Levator Scapulæ.

Serratus Anticus Major.

Serratus Anticus Minor.

Subclavius.

Of the latter description are the

Pectoralis.

Latissimus Dorsi.

Muscles of the Thorax.

Serratus Posticus Superior.

Serratus Posticus Inferior.

Intercostales Externi,

Inter-

Intercoſtales Interni.

Levatores Caſtarum Longiores.

Triangularis Sterni.

Levatores Coſtarum Breviores.

Diaphragma.

N. B. Theſe are alſo the proper Muſcles of Reſpiration.

Muſcles of the Thigh, ſituated on the Pelvis.

Gluteus Magnus.

Tenſor Vaginæ Femoris.

Gluteus Medius.

Gluteus Minimus.

Pſoas Magnus & Iliacus.

Pyriformis.

Obturator Internus, & Gemini.

Quadratus Femoris.

C H A P. VII.

OF THE
MUSCLES *of the* LOINS.

INDEPENDENT of those which belong to the Spine :

Quadratus Lumborum.

Psoas Parvus.

To follow the Muscles in the order of Dissection, it is necessary to proceed next to the

Latissimus Dorsi.

It arises, at its inner edge, by an Aponeurosis from the spinous processes of, from eight to four lower Dorsal Vertebrae, and from all those of the Loins and Sacrum : also, from the oblique processes of the Sacrum, from the Gluteus Magnus : and by its outer edge, from the posterior part of the Spine of the Ilium : also tendinous and fleshy

fleshy, from the extremities of the three inferior Ribs, near their Cartilages, by as many distinct slips.. The inferior fibres ascend; and the superior, run transversely over the inferior angle of the Scapula, from which they receive a slip, towards the Axilla, where they are all collected into a rope which dilates again into a thin Tendon, connected to that of the Teres Major, and with it inserted into the inner edge of the bicipital groove of the Os Humeri.

Use.—To pull the Arm backwards, and downwards; and to help to rotate the Os Humeri.

Dorsalis Magnus.—*Wins.*

Serratus Posticus Inferior.

ARISES by one common Aponeurosis with the *Latissimus Dorsi*, to which it is firmly connected, from the inferior part to the second, third, or fourth inferior Dorsal Vertebra; and is only distinct superiorly. Also, by an interior Aponeurosis, from the lumbar transverse processes which, uniting with the former, compose a sheath for the *Sacrolumbalis*, and *Longissimus Dorsi*; and after-

afterwards gives rise to the Obliquus Internus Abdominis; and to the four fleshy slips of the Serratus, which terminate in as many inferior Ribs, near their Cartilages.

Use.—To depress the Ribs to which it is inserted.

Quadratus Lumborum.

ARISES broad, tendinous, and fleshy, from the posterior half of the Spine of the Ilium, interiorly: and from a ligament extended from it to the transverse process of the lowest Lumbar Vertebra.

Is inserted into the transverse processes of the four superior Lumbar Vertebrae, into the last rib near the spine: and by a small Tendon, into the last, or more Dorsal Vertebrae. It receives some fleshy slips from the Lumbar Vertebrae, in its ascent.

Use.—To move the Loins to one side; pull down the last rib: and when both act, to bend the Loins forward.

Quadratus; or, Lumbaris Externus.—

Winslow.

Psoas

Psoas Parvus.

ARISES fleshy within the next Muscle, from the sides of the last Dorsal, and one or two upper Vertebrae of the Loins; sends off a small, long Tendon, which expands into an Aponeurosis, covering and confining the Psoas Magnus, and Iliacus.

Inserted into the brim of the Pelvis, at the junction of the Os Ilium, and Pubis; and sends a Fascia to the Vagina Femoris.

Use.—Seems to be that of a Tensor Vaginae Psoae, & Iliaci; which use has been attributed to it by Albinus.

Psoas Magnus.

ARISES from the bodies laterally, and transverse processes anteriorly, of the last Dorsal, and all the Lumbar Vertebrae, by as many distinct slips, which uniting, pass down over the Pubis; to be inserted by a Tendon common to it and the Iliacus, into the Trochanter Minor Femoris which it comprehends; and fleshy a little below it:

as

as it passes over it, it adheres to the Capsula of the Acetabulum.

Use.—To bend the Thigh, and rotate it: but when this is fixed, it moves the Pelvis, and the Loins.

Pfoas; seu, Lumbaris Internus.—*Wins.*

Iliacus Internus.

ARISES fleshy from all the inner surface below the Spine of the Os Ilium, from the edge between its anterior superior spinous process, and the Acetabulum, and from the Capsular Ligament.

It is inserted into the Pfoas Magnus, where it begins to form the common Tendon on the Pubis.

Use.—To assist the former, except as to the action on the Loins. There is a very considerable Bursa Mucosa between the Tendon and the Bone.

Iliaco Pfoas.—*Haller.*

F

Gluteus

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Gluteus Maximus.

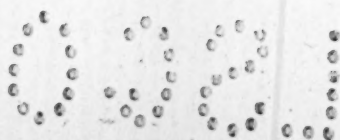
ARISES by a fleshy circular edge, from the outer lip, and posterior part of the Spine of the Ilium, and posterior superior spinous process; from the connecting Ligament, and whole external side of the Os Sacrum and Coccyx, where it communicates with the Aponeurosis of the Latissimus and head of the Sacrolumbalis, and Longissimus Dorsi; from the posterior Sacrosciatic Ligament, over which part of the inferior edge hangs in a flap: the fleshy fibres form a broad belly composed of very coarse distinct Fasciculi, which pass forward obliquely and downwards, to terminate anteriorly and superiorly, in a very substantial Aponeurosis, which is inserted into the Linea Aspera, and down to the outer part of the head of the Tibia; giving rise to the Vagina Femoris, or Fascia Lata: but inferiorly, this belly ends in the upper part of the Linea Aspera, by a thick, broad Tendon.

Use.—To extend the Thigh, and rotate it a little outwards.

Gluteus Magnus.—*Alb.*

G. Major.—*Cowper.*

N. B.



N. B. The Vagina, or Fascia Lata, should not be cut through until the next Muscle has been dissected.

Tensor Vaginae Femoris.

ARISES by a narrow, tendinous, and fleshy beginning from the external part, of the anterior superior spinous process of the Os Ilium, descending gently backwards as it encreases in breadth; and is inserted a little below the Trochanter Major, into a doubling of the Fascia Lata, on the outside of the Thigh; by the intervention of which it extends the Leg, while it raises the Thigh, and stretches the Vagina Femoris, or Fascia Lata.

Musculus Aponeurosis, vel Fasciæ Latae.—Wins.

Fascialis.—Haller.

N. B. In raising this Muscle, it should be separated from the Sartorius, immediately under the anterior superior spinous process of the Ilium; and raised backwards, beginning with its Tendon, and separating it upwards, so as to avoid injuring

the Gluteus Medius which lies under it. The same method is to be observed in raising the Gluteus Maximus, immediately after; else the small rotatory Muscles under it may be wounded. The skin should be preserved to cover and protect the parts, or they will putrefy.

Gluteus Medius.

ARISES by a circular fleshy edge, from all the outer lip of the Spine, and anterior superior spinous process of the Ilium, anterior to the G. Maximus; from the Dorsum of that bone, and from the Aponeurosis which covers this Muscle: is inserted by a broad Tendon, between which, and that of the Pyriformis, is a Bursa Mucosa, into the outer and posterior part of the Trochanter Major, being connected anteriorly to the Gluteus Minimus.

Use.—To assist the G. Maximus.

N. B. On raising the Gluteus Medius, it is to be observed, that the Gluteus Minimus, the Pyramidalis, Gemini, with their contained Obturator Internus, and the Quadratus

Quadratus Femoris, are disposed in the form of rays round the great Trochanter; and in the order here mentioned.

Gluteus Minimus.

ARISES by a circular fleshy edge, within the former, from a ridge which is continued backwards from the anterior superior spinous process, over the middle of the Dorsum of the Ilium, as far as the Sacro-sciatic Notch: passing over the Capsular Ligament to which it firmly adheres: it is inserted by a strong Tendon, which has its Bursa Mucofa, into the fore and upper part of the Trochanter Major.

Use.—To assist the other Glutei Muscles.

Gluteus Minor.—Alb.

Pyriformis.

ARISES within the Pelvis, by three tendinous and fleshy origins, from the second, third, and fourth false Vertebrae of the Sacrum;

Sacrum; from thence narrowing, as it passes out of the Pelvis, with the great Sciatic Nerve in the Sacrosciatic Notch, where it receives a few fleshy fibres which arise from the Ilium.

It is inserted by a roundish Tendon into the upper part of the cavity at the root of the Trochanter Major, internally, and in conjunction with the Obturator Internus, and Gemini.

Use.—To move the Thigh a little upwards, and rotate it.

Pyramiformis; seu, Pyramidalis.—*Wins.*

— seu, Iliacus Externus.—

Dougl.

Pyramidalis.—*Haller.*

Obturator Internus.

ARISES fleshy from the Os Ilium, Ischium, and Pubis, round the anterior half of the Foramen Thyroideum internally, where the fibres divide for the transmission of the Obturator Nerve, and Blood-vessels; they collect and become more slender, ending in a Tendon, which passes
out

out of the Pelvis, between the posterior Sacro-sciatic Ligament, and the Tuber of the Ischium; where, it enters the sheath of the Gemini in which it bends round the Ischium, to be inserted by a round Tendon into the large pit at the root of the Trochanter Major.

Marfupialis; seu, Obturator Internus.—

Dougl.

Gemini.

ARISE by two distinct heads; in some by one; the superior from the acute process; the inferior from the Tuber of the Ischium, and Sacro-sciatic Ligament; both are united to form a sheath, in which is a Bursa Mucosa, for the reception of the Tendon of the Obturator Internus, on each side of which they are inserted: they adhere also to the Capsular Ligament of the joint.

Use.—To roll the Thigh outwards, and defend the Tendon of the Obturator from friction, in passing over the Ischium: also, to retain it from starting, by its sheath, while in action.

Gemelli.—*Wins.*

Quadratus

Quadratus Femoris.

ARISES tendinous and fleshy from the outer margin of the Tuber of the Ischium, running transversely.

It is inserted fleshy, into an oblong ridge on the outside of the Trochanter Major; and as low down as the Trochanter Minor.

Use. — To rotate the Femur as the former: also to close the Thighs, if separated.

Obturator Externus.

ARISES by a semicircular fleshy margin, from the part of the Os Pubis, and Ischium, which form the anterior border of the Foramen Thyroideum; and from the lower brim of the same: the fibres converge as they pass over the Ligament which closes that Foramen, and outwards round the root of the Cervix Femoris.

To be inserted by a strong Tendon into the cavity, situated posteriorly and interiorly,

riorly, at the root of the Trochanter Major.

Use.—To rotate the Femur, obliquely outwards.

N. B. The Integuments which have been preserved, may be returned over the outside of the Pelvis; the lower extremities removed, and suspended in a well-ventilated situation; and, if convenient, wetted with ardent spirits, which will assist in preserving them.

The Anatomist may then return to the Muscles situated on the Thorax.

Cucullaris.

ARISES tendinous from the protuberance in the middle of the outer arch of the Os Occipitis; by an Aponeurosis from the arch, as it extends towards the mastoid process: from its fellow over the spinous processes of the Cervical Vertebrae, the intervening ligamentous Raphe, being called Ligamentum Nuchæ, but from the spinous processes of the two inferior; and from those of eight, to all the Dorsal Vertebrae:
and

and in their intervals adhering tendinous to its fellow their whole length.

It is inserted fleshy into the posterior part of that half of the Clavicle next the Acromion; tendinous and fleshy into the Acromion, and almost all the Spine of the Scapula.

Use. — The upper descending fibres draw the Scapula obliquely upwards; the middle, transversely: the inferior ascending fibres, obliquely down and backwards: when all act, they pull the Scapula back; and this bone being fixed, they move the Head.

Cucullaris, feu, Trapezius. — *Dougl.*

Trapezius. — *Wins.*

N. B. The Latissimus Colli, which lies within the skin anteriorly, and descends over the Clavicle: may be preserved by turning up the Integuments before the next Muscle is raised.

Pectoralis.

ARISES by a semicircular edge, extending from the anterior surface of that half of the

the

the Clavicle next the Sternum, down the margin of the Sternum, and over the Cartilage of the fifth, sixth, and often of the seventh Rib, where it communicates with the Obliquus Externus; and sometimes inferiorly, but higher up, with the Rectus Abdominis. The fibres thence converge towards the Axilla, where they decussate in a twisted manner before they give rise to a broad flat Tendon, which is inserted into the outer brim of the Bicipital Sulcus of the Os Humeri. The Brachial Artery, and Plexus, lie between this and the Tendon of the Latissimus Dorsi.

Use.—To move the arm towards the Sternum, and in the several directions of its fibres; to rotate the Os Humeri a little; and to lower the Scapula and Clavicle.

N. B. To separate this Muscle from the Deltoides, the Dissector should begin at the Tendon, and proceed to the Clavicle backwards.

Rhom-

Rhomboides, Major.

ARISES tendinous from the spinous processes of the four or five superior Vertebrae of the Back, and inferior part of the last cervical; it descends obliquely to be inserted into all the base of the Scapula, below its Spine.

Use.—To draw the base upwards, while the Cervix is depressed.

Rhomboides, Minor.

ARISES tendinous from the spinous processes of the sixth and seventh Vertebrae of the Neck, and from the Ligamentum Nuchæ at the fifth, where it adheres with the origin of the Cucullaris and Serratus Posticus Superior: it descends immediately above the former, to be inserted into the base of the Scapula, opposite to its Spine.

Its uses are the same as the former.

Levator

Levator Scapulæ.

ARISES fleshy from the base of the Scapula, between the superior angle and the spine; ascends to be inserted tendinous and fleshy into the transverse processes of the three, four, or five superior vertebræ of the neck, by as many distinct slips: at the Epistrophæa and Atlas, it usually coheres with the origins of the Splenius and Scalenus, at the fourth, with the termination of the Cervicalis Descendens.

Use.—To raise the Scapula, and incline it forward; and when fixed, it acts on the Neck.

Angularis Vulgo, Levator Proprius.—

Elevator; seu, Musculus Patientiæ—
Wins.
Doug.

Serratus Posticus Superior.

ARISES by an Aponeurosis from the Ligamentum Nuchæ, over the spinous processes of the two last Vertebræ of the Neck;

Neck; and from one to three uppermost of the Back, being there connected with the Rhomboideus, Splenius, and Cucullaris. It is in general inserted by four digitations into the second, third, fourth, and fifth Ribs; sometimes by three only into an equal number of Ribs.

Use.—To elevate the Ribs; dilate the Thorax, and afford a sheath to the subjacent Muscles.

Serratus Anticus, seu; Pectoralis Minor.

ARISES tendinous and fleshy from the upper edge of three, usually the third, fourth, and fifth Ribs, near their Cartilages, and passes obliquely upwards. To be inserted tendinous into the coracoid process of the Scapula.

Use.—To raise the ribs, or to bring the Scapula forward when they are fixed.

Serratus Minor Anticus.—*Doubt.*

Subclavius;

Subclavius.

ARISES tendinous from the first Rib, or from its Cartilage immediately adjoining; proceeds laterally, encreasing in breadth, To be inserted into the Clavicle, from near its head as far as the coracoid process, and into this, in some instances.

Use.—To bring the shoulder forward; and this being fixed, to raise the Rib a little.

Serratus Magnus.

ARISES by nine digitations, from eight superior Ribs, viz. by one in conjunction with the Scalenus Medius from the first; two from the second; and one from each of six succeeding Ribs: sometimes one or two more arise from the lower Ribs; they run obliquely upwards and backwards, in distinct portions, until they attain the base of the Scapula internally; to the whole of which they are inserted in a line between the attachment of the Rhomboid, and the

origin of the Subscapularis Muscles, being folded about the two angles of the Scapula.

Use.—To pull the Scapula forward, or downwards, in the different directions of its digitations; and that being fixed, to dilate the Thorax, by raising the Ribs.

Serratus Major Anticus.—*Dougl.*

C H A P. VIII.
OF THE
MUSCLES *of the* THORAX.

Which are the proper Muscles of
Respiration.

Intercostales Externi.

THE fibres of the Intercostales Externi, pass obliquely forward from the inferior edge of each superior, to the upper edge of each inferior Rib; the whole length, from the Spine to the joining of the Ribs with their Cartilages; from which, to the Sternum, they are discontinued, that space being occupied by an Aponeurosis which covers the internal Intercostals.

Intercostales Interni.

THESE fibres arise from the same parts as the external; but they proceed obliquely

backwards, being continued from the Sternum, as far as the angle of the Rib; and from thence to the Spine, they are wanting: at the eighth, ninth, and sometimes other Ribs, there are portions of these fibres prolonged over the intermediate, to be inserted into the next Rib.

These are, by Douglas, called—*Costarum Depressores Proprii*.

By Winslow — *Infra Costales*.

Levatores Costarum Breviores.

EACH Rib receives a fleshy slip from the transverse processes of that Vertebra, immediately above the one with which it articulates, each being longer, as inferior, and descending obliquely outwards.

Supra Costales.—*Wins.*

Levatores Costarum Longiores.

ARE three or four slips arising from the transverse processes, as the former; and passing

passing over one Rib to be attached to the subsequent; as from the seventh Vertebra to the tenth Rib, &c.

Supra Costales.—*Wins.*

Diaphragma.

THE Diaphragm is that broad vaulted fleshy partition, descending obliquely backwards within the margin of the Thorax, and separating it from the cavity of the Abdomen, allowing, however, a communication of vessels, &c. through its Foramina. It is composed of a middle lunated Tendon, the horns of which, point posteriorly, bordered all round by a fringe of fleshy fibres; the posterior of which being produced down the Spine, and divided, the parts are called Crura; which productions, for the sake of method, we shall call the origin of the Muscle.

The Crura of the Diaphragm are two; one the larger, to the right; the other, and smaller, to the left; each composed of three Appendices, four according to Albinus; but the accurate Haller has not recognized the fourth.

The

The two inmost Appendices, of which the right is larger, arise tendinous from the anterior part of the third Lumbar Vertebra, from its inferior Cartilage, and from the ligament covering them; from thence becoming thicker and narrower as they ascend; they separate to intercept an oval Foramen for the transmission of the Aorta, and Thoracic Duct, which lies on the right of it; immediately above which, the Appendices decussate as they become fleshy, and form two thick columns which intercept an oval Foramen for the passage of the Œsophagus, and eighth pair of Nerves, above which they again decussate, become tendinous, and proceed in a radiated form, again to become fleshy, and terminate within the Zyphoid Cartilage, and those of the seventh Rib: the middle, and the outermost appendices arise laterally from the bodies of the third, second, and first Lumbar Vertebrae, distinctly and in a diminishing series, as to length and substance, but higher up. They are at first tendinous, and spread on the Spine; they after combine with the former to compose the Crura, which degenerate into fleshy fibres, passing off laterally in lines curved the more, as they recede from the middle straight fibres, and

and become tendinous in the middle, fleshy again at the margin of the Thorax, where they are inserted into the inside of the Cartilages of the seventh, eighth, ninth, tenth, and eleventh Ribs, which form the brim of the same; but from the transverse processes of the first Lumbar Vertebra, goes off at each side a ligament to the point of the twelfth Rib, leaving an arch under which the heads of the Psoas Magnus, and Quadratus Lumborum lie, while from the upper part arise fleshy fibres to compleat the circumference of the Diaphragm; and which proceed forward to the middle Tendon, and transmit some tendinous Fasciculi, which with other adventitious fibres, traversing the face of the Diaphragm, form the margin of the Foramen for the Vena Cava, which is situated to the right, and anterior to the Foramen, for the Æsophagus; which venous Foramen is a quadrangle rounded at the angles.

Between the first or inmost, and second or middle appendices of the Crura at each side, there is a narrow Interstice for the transmission of the Intercostal Nerve: at the left side the Trunk passes entire through an Interstice; and the anterior branch, or
nervous

nervous Splanchnicus which goes to form the Ganglia Semilunaria through a different fissure: but at the right side, the Trunk, the Branch, and the Vena Azyga, pierce through one and the same Interstice.

The convex surface of the Diaphragm which projects into the Thorax; is covered by the Pleuræ, and between them by the Pericardium; the concave vaulted surface next the Abdomen, is lined by the Peritonæum, except where the Liver comes in contact with it at the Foramen for the Cava.

Use.—It is among the Congeneres which dilate the Thorax by contracting during inspiration, and bringing the vault of this Muscle into a plane, whence the cavity of the Thorax is lengthened, and the Abdominal Viscera pushed outwards and downwards. It is antagonist to the Abdominal Muscles in respiration; but they are congeneres in dejection, and vomiting: and probably the Diaphragm is antagonized in inspiration, by the Serratus Posticus Inferior.

It is evident also, that all Muscles inserted into the Ribs, do become Congeneres on urgent occasions.

The

The Superior, or greater Muscle of
Innes ; is the Diaphragm.

The Inferior, or lesser Muscle of Ditto ;
is the Appendix, or Crura.

Septum Transversum ; Vesalius.

Diaphragma, of Authors in ge-
neral.

Triangularis Sterni, seu, Sterno Costalis.

THIS Muscle, which appears to be part
of the Transversalis Abdominis, arises
fleshy and a little tendinous, from all the
length of the Cartilago Ensiformis laterally ;
from the edge of the lower part of the
Sternum, and adjoining extremities of the
Cartilages of four Ribs ; from whence its
fibres ascend obliquely outwards : to be
inserted by four angular terminations, into
the farther ends of the Cartilages of the
second, third, fourth, and fifth Ribs, near
where they join ; and sometimes into these
also.

When the several portions of this Muscle
are disjunct, they obtain the name of
Sterno-

Sternö-costales. It admits, also, of several other varieties.

Use.—To depress and bend these Cartilages, consequently it is a congener with the Abdominal Muscles.

THERE now remains but one Muscle, the Coracohyoideus, which preserves the continuity of the Arm with the Trunk, which, if the subject is bad, may be cut across, and the arm hung in some proper situation to preserve it; while the Dissector proceeds to the Muscles of the Neck and Spine.

It has been recommended above to preserve the aponeurotic originations of the Serrati, which should now be cut through to expose the Muscles which belong to the Head and Spine, and those which are proper to the Spine, situated posteriorly; and without injuring the Integuments anteriorly, the superior part of the Mastoid Muscles must be raised to afford a prospect of the Splenii, which, when dissected, may be allowed to retain their upper attachments, until the Muscles of the Spine have been separated.

*The Muscles common to the Head and Trunk,
and which move the Head backwards, or
rotate it—are*

Splenius Capitis.

_____ Colli.

Biventer Cervicis, cum Complexo.

Trachelo Mastoideus.

Rectus Capitis Posticus Major.

_____ Posticus Minor.

Obliquus Capitis Superior.

*_____ Inferior — which
is properly a Muscle of the Spine.*

*The Muscles of the Spine which are situated
posteriorly, are the following : — and are
Extensors or Rotators, or both.*

Spinalis Dorfi.

*Longissimus Dorfi, cum Sacro-
lumbali.*

Cervicalis descendens.

Transversalis Cervicis.

Spinalis Cervicis.

H

Semi-

Semi-spinalis Dorſi.

Multifidus Spinæ.

Interspinales.

Splenius Capitis, & Colli.

SPLENIUS Capitis ariſes commonly conjoined with the Splenius Colli; but more frequently diſtinct and tendinous from the Ligamentum Nuchæ, at the ſecond, third, fourth, fifth, and ſixth ſpinous proceſſes of the Vertebrae of the Neck; frequently, alſo, from the ſpinous proceſſes of the laſt Cervical, and firſt Dorſal Vertebrae, immediately within the Cucullaris, and Serratus, with which it is adherent: at the third Vertebra of the Neck, the Splenii of both ſides recede from each other, and leave part of the complexus in view as they paſs upwards; to be inserted into the whole length of the Maſtoid proceſs externally, and backward half-way to the Occiput.

Splenius Colli, ariſes immediately below, and contiguous to the inferior edge of the former; from three, four, or five ſuperior ſpinous proceſſes of the Back, by as many diſtinct beginnings, frequently not from the firſt or ſecond;

second; they combine and ascend as the former. To be inserted into the transverse processes of the first and second Cervical Vertebrae; sometimes by a third portion into that of the third Vertebra, this being adherent with the Transversalis Cervicis, and Levator Scapulae; and the superior insertions, with the latter only.

Portio superior, & Portio inferior
Mastoidei posterioris, seu Splenii.—

Wins.

N. B. When this Muscle has been raised and turned up, the principal Muscles of the Neck and Spine come in view, and require little more preparation than to render their Tendons distinct; taking care to avoid cutting the slips by which they communicate and run into each other.

Biventer Cervicis, cum Complexo.

BIVENTER Cervicis has been observed distinct from the Complexus; sometimes not: it has four Heads proceeding from the

H 2

trans-

transverse processes of the sixth, fifth, fourth, and third Dorsal Vertebrae; in others from the seventh to the fourth, and even from the eighth to the fourth inclusive; or by three or two heads, beginning either at the fifth or sixth, and adhering there with the origins of the *Transversalis Cervicis*; they proceed upwards receiving one slip from the *Longissimus Dorsi*, and unite; become slender, and form a Tendon at the Neck, and a fleshy Belly again as it dilates upwards. It is inserted into the inferior edge of the outer transverse ridge of the Occiput, under the *Cucullaris*, from the middle protuberance towards the Ear; it sometimes receives, above its Tendon, one slip from the lowest Cervical, or upper Dorsal; or even two or three from these and the next dorsal spinous processes.

The *Complexus* is broader and thicker than the former, and has more originations from the Vertebrae; the three lowest from as many superior spinous processes of the Back; the fourth from the lowest Cervical; the rest from the oblique processes of the sixth, fifth, and fourth, firmly adhering to their *Capsulae*: sometimes the lowest head is wanting: again there are instances of two additional heads from the fourth and fifth

fifth Dorsal, these are small and tendinous; a supernumerary origin may also be observed to proceed from the oblique process of the lowest Cervical Vertebra; they all ascend towards the Spine, and unite, having many intertendinations, and are inserted into the Occiput beneath the former.

Use. — To draw the Head backwards when both act; to a side when one acts.

Complexus, seu, Complexus Major.—

Wins.

Spinalis Dorsi.

MAY be esteemed part of the Longissimus Dorsi, appertaining to the dorsal spinous processes, being very seldom distinct: it arises by four Tendons, shorter as superior, viz. two from the upper Lumbar, two from the lower dorsal spinous processes, and sometimes farther down by one Vertebra; or the lowest are continuations of Tendons from the Longissimus Dorsi; they become fleshy, of moderate breadth, are frequently continuous with the Longissimus, and inserted by from three to eight Tendons, increasing in size as they

are superior, into the points of as many upper dorsal spinous processes, being there connected with the Cervicalis Descendens.

Use.—It is congeneric with the Erectors of the Spine.

Spinalis Dorfi Magnus.—*Wins.*

Longissimus Dorfi, cum Sacrolumbali.

THESE two Muscles represent two terminations of one Muscle, which arises from the posterior superior spinous process of the Ilium; from the extremity of the Sacrum, and the three superior spinous processes of the same; from three to all those of the Lumbar Vertebrae, and from the connecting Ligament of the Ilium and Sacrum, where it also coheres with the Gluteus Maximus: it is fleshy interiorly and next the Ilium; tendinous exteriorly and next the Spine: when incumbent on the Loins, it detaches five double insertions ending tendinous, to each of the lumbar transverse processes; where this Muscle surmounts the last Rib, it divides into the Sacrolumbalis, and

Longissimus

Longissimus Dorsi,

WHICH as it ascends, gradually diminishes by the separation of numerous insertions, which are more slender and long as they are superior; twelve of these are fixed singly to the inferior part of each dorsal transverse process; others ascend obliquely outwards, and are attached near the tubercles of an indeterminate number of Ribs, as from seven to eleven; but the last ascends to the neck, and is usually connected with some one of the Muscles placed there, as the Trachelomastoideus, &c. &c. or by a double Tendon into two of them, or even by a third to the Trachelomastoideus, and with the Transversalis into some Cervical Vertebra. From one to five additional heads have been known to arise from the uppermost lumbar, or inferior dorsal transverse processes, and join this Muscle above.

Sacro-

Sacrolumbalis.

ENDS in thirteen tails, passing up in a diminishing series, the first two or three arise from it before its separation; the twelve lowest are inserted into the angles of the Ribs, the thirteenth to the last cervical transverse process: and it may be said to send down to, or receive from the upper margin of eight or fewer inferior Ribs, where incumbent on them, between the Spine and the forementioned terminations, an equal number of fleshy portions which diminish upwards, the one or two uppermost commonly cohering with the *Cervicalis descendens*: an irregular head has occurred arising from the fourth Rib, and inserted into the second dorsal transverse process.

Use.—To erect the Spine with other Congeneres: also to depress the Ribs.

Cervicalis Descendens.

Is adherent to the upper extremity of the *Sacrolumbalis*; and arises by two, three,
or

or four tendinous heads from the angles of the sixth and other indeterminate Ribs above it; they coalesce, and form a flat, fleshy belly, which again divides into as many slender Tendons, which terminate in the transverse processes of the third, fourth, fifth, and sixth Cervical Vertebrae, that of the fourth being combined with an insertion of the Levator Scapulae: the number of insertions are sometimes fewer; and a slip from the Sacrolumbalis is often so interwoven as to render this Muscle inseparable from it.

Transversalis Gracilis, seu, Collateralis

Coll.—

Trachelomastoideus.

ARISES from the same cervical and dorsal transverse processes as the Complexus, and is connected with the originations of the same, having from four to seven heads, which unite into a narrow flat belly; it passes up and outwards, to be inserted into the posterior margin of the mastoid process, by a thin Tendon, and within the Splenius Colli: it commonly receives a
 slip

slip jointly from the Longissimus and Transversalis below, and is found connected with the Complexus, which it assists.

Complexus Minor, seu, Mastoideus Lateralis.—*Wins.*

Transversalis Cervicis.

ARISES by six Tendons from so many superior dorsal spinous processes, sometimes by one additional from the seventh dorsal, or a second from the last cervical; or from five dorsal alone, or with one cervical, to which sometimes accede others from the inferior Vertebrae, these being the longest and slenderest; all unite at the last Cervical Vertebra into a fleshy belly, which again projects into four or five Tendons, to be inserted into the second, third, fourth, and fifth cervical transverse processes, the last of which coheres with the Splenius Colli, and a Tendon frequently joins with the fourth or fifth termination, or with the Belly of this Muscle, from the Longissimus Dorsi, a sixth termination has been known to pass to the Atlas: a common production from this Muscle and the Longissimus Dorsi, has been

been mentioned above. The terminations are also found united with the Cervicalis Descendens, as the origins are with the Biventer Cervicis.

Use.—To turn the Neck.

Transversalis Colli Major.—*Wins.*

Spinalis Cervicis.

ARISES in conjunction with the Tendons of the Complexus, from the transverse processes of the uppermost six Vertebrae of the Back, by as many distinct Tendons ascending obliquely under the Complexus, to be inserted into the spinous processes of the Cervical Vertebrae, below the first: it also receives anomalous slips from the Dorsal Vertebrae.

Use.—To extend the Neck, and to move it obliquely backwards.

Semispinalis, seu, Transverso Spinalis Colli.—*Wins.*

Semi—

Semi-spinalis Dorfi.

ARISES most frequently from the transverse processes of the sixth, seventh, eighth, ninth, tenth, and eleventh Dorsal Vertebrae, by as many distinct slender Tendons, which become fleshy, then tendinous again; and are so inserted into the bases of four superior dorsal spinous processes, and two inferior cervical, by as many tendons, the uppermost of which are long and slender: the number of origins and insertions vary, and are sometimes unequal among themselves.

Use.—To erect the Spine as the former, &c. of which it is a part.

Semi-spinalis, seu, Transverso-spinalis Dorfi.—*Wins.*

N. B. The two former may be distinguished from the next by the greater obliquity of its fibres.

Multifidus

Multifidus Spinæ.

ARISES by four Tendons from so many tubercles on the back of the Sacrum; from the posterior ligament and part of the Ilium where it joins the Sacrum; from all the oblique processes of the Vertebrae of the Loins, from the transverse of the Back, and from the oblique of the Neck except the three first, by as many Tendons which become fleshy, and run obliquely upwards to be inserted by an equal number of distinct Tendons into all the spinous processes of the Loins, Back, and Neck, except the Atlas.

Use.—The same as the former.

Transverso Spinalis Lumborum, Sacer
Veteribus.

Semi-spinalis Internus, seu, Trans-
verso-spinalis Dorfi.

Semi-spinalis, seu, Transverso-spinalis
Colli, pars interna.—*Wins.*

Transversalis Lumborum, vulgo sacer.
————— Dorfi.

————— Colli.—*Dougl.*

Interspinales Colli.

THE spaces between the six inferior cervical spinous processes, most of which are forked, are occupied by muscular portions, which therefore arise double from each inferior spinous process, and so ascend to be inserted into each superior.

Use.—To approximate these processes.
 Spinales Colli Minores.—*W.*

Intertransversales Lumborum.

ARE five small Muscles which occupy the spaces between the last dorsal, and all the lumbar transverse processes. They approximate these processes.

Transversales Lumborum.—*W.*

Rectus Capitis Posticus Major.

ARISES fleshy from the external part of the spinous process of the Vertebra Dentata, becomes

becomes broader as it ascends obliquely outwards, to be inserted tendinous and fleshy into the Os Occipitis, under the lower edge of the Obliquus Capitis Superior.

Use.—To pull the Head backwards.

Rectus Major.—*Wins. & Dougl.*

Rectus Capitis Posticus Minor.

ARISES by a point close to its fellow, from a little protuberance on the middle of the Atlas posteriorly, whence it spreads like a fan, to be inserted by its outer edge which is covered by the Rectus Major, within the interior transverse ridge of the Os Occipitis.

Use.—To assist the former.

Rectus Minor.—*W. & D.*

Obliquus Capitis Superior.

ARISES from the transverse process of the Atlas, passes nearly in a horizontal direction backwards, to be inserted tendinous

and fleshy into the Os Occipitis, behind the Mastoid process, and under the Complexus.

Use.—To rotate the Head.

Obliquus Minor.—*Wins.*

———— Superior.—*Dougl.*

Obliquus Capitis Inferior.

Arises fleshy from the spinous process of the Vertebra Dentata exterior to the Rectus Major; and forming a thick fleshy belly, passes obliquely forwards and upwards, to be inserted into the transverse process of the Atlas.

Use.—To assist the former.

Obliquus Inferior, seu, Major.—*W.*

IN addition to those Muscles enumerated page 73 which appear posteriorly, there are others common to the Head and Neck, which

which are situated laterally or anteriorly,
as

Sternocleidomastoideus.

Rectus Capitis Internus Major.

Rectus Lateralis Capitis.

Also Muscles similarly situated which
appertain to that part of the Spine called
the Neck ; and are

Scaleni.

Inter-transversarii Priores, & Post-
eriores.

Rectus Capitis Internus Minor.

Longus Colli.

Which Muscles cannot be dissected until
the skin is perpendicularly divided from the
Chin to the Sternum ; raised by careful dis-
section, from the Platisma Myoides which
lies close within it ; from the Muscles of the
Maxilla Inferior, and parts under the Ear :
by which method, this Muscle is entirely
uncovered : it should then be separated to
expose the Sternocleidomastoideus, and
Caracohyoideus which should next be re-
moved, and then the Muscles of the
Tongue, Larynx, and Os Hyoides become
I 3 evident ;

evident; all which, with those of the Pharynx, must also be taken away before the anterior Recti, or the Longus can be seen. In this process the Thyroid, Submaxillary, and Parotid Glands; the Carotid Arteries; the Jugular Veins; the eighth, ninth, and intercostal Nerves, with other important parts, become conspicuous, and merit attention before the removal of them.

Latissimus Colli.

ARISES by slender disgregated fleshy fibres, in the Cellular substance over the upper part of the Deltoides and Pectoralis: they ascend obliquely, unite, and form a broad thin fleshy layer on the side of the Neck within the skin to which it is adherent, and are lost on the lower jaw between its angle and the Depressor Anguli Oris, to which last it is firmly connected; and but slightly to the skin covering the inferior part of the Masseter Muscle, and Parotid Gland.

Use.—To assist the Depressor Anguli Oris, draw down the adjoining part of the Cheek,

Cheek, but to pull up the skin of the Neck to which it adheres.

Platysma Myoides.—*Galen.*

M. Cutaneus.—*Wins.*

Quadratus Genæ, vel Lat. Col.—
Dougl.

Sterno-cleidomastoideus.

ARISES by two distinct origins, the anterior tendinous and a little fleshy from the summit of the Sternum, near its articulation with the Clavicle; the posterior fleshy from the upper and anterior part of the Clavicle; they unite to form one Muscle which runs obliquely upwards and backwards, to be inserted by a thick Tendon into the mastoid process which it surrounds, and gradually becomes thinner as far back as the Lambdoid Suture.

Use.—To bow the Head, and rotate it.

Sterno-mastoideus, & Cleido-mastoideus.—*Alb.*

Sterno-mastoid: vel Mastoideus externus & internus.—*Wins.*

Mastoideus.—*Dougl.*

Caraco-

Coraco-Hyoideus.

ARISES broad, thin, and fleshy from the superior costa of the Scapula, near the femilunar Nick at the base of the coracoid process, and from the ligament which fills it; thence ascending obliquely forward with an intertendination under the Sternocleidomastoideus; is inserted into the base of the Os Hyoides, between its Cornu and the insertion of the Sterno-hyoideus.

Use.—To pull the Os Hyoides obliquely downwards.

Omo-hyoideus.—*Winf.*

Scaleni,

HAVE several properties in common; they form one belly, tendinous below, but divided into many terminations above. This belly is usually described as three, or five Muscles; they might more properly be described as two, the remaining heads being subject to vary.

Scalenus

Scalenus Anticus.

ARISES from the fourth, fifth, and sixth transverse processes of the Cervical Vertebrae, by as many Tendons; and is inserted into the inner edge of the first Rib, near its cartilage.

Scalenus Prior.—*Alb.*

Scalenus Primus.—*Dougl.*

Portio Scaleni Primi.—*Winf.*

Scalenus Medius.

ARISES from all the transverse processes of the Cervical Vertebrae, by as many strong Tendons; and is inserted into the upper side, and outer part of the first Rib: the brachial Artery, and Plexus, pass between this and the former.

It sometimes has an additional portion arising from some of the middle Vertebrae, and inserted into the upper and outer part of the second Rib, above a digitation of the

the Serratus Magnus there attached, called
Scalenus Lateralis, by Albinus.

Scalenus Secundus.—*D. & W.*

Scalenus Posticus.

ARISES by two or three heads from the inferior or middle transverse processes of the Cervical Vertebrae, and is inserted into the second Rib exteriorly between the angle and tubercle. It is sometimes wanting.

Scalenus Tertius.—*Dougl.*

Portio Scaleni Sec, Posterior.—*Wins.*

Inter-transversarii Cervicis.

ARE six distinct double Muscles which occupy the spaces between the furcated transverse processes of the cervical Vertebrae, and are double, called therefore Priores, and Posteriores.

Use.

Use.—To approximate these processes, and so incline the Neck to a side.

Transversales Colli Minores.—*Wins.*
Musculus Caput Concutiens, & Intertransversales.—*Dougl.*

Muscles of the Larynx and Os Hyoides.

Of the Larynx.

Sterno-thyreoideus.
Hyo-thyreoideus.
Crico-thyreoideus.

Of the Os Hyoides.

Sterno-Hyoideus.
Coraco-hyoideus.
Stylo-hyoideus.
Mylo-hyoideus.
Genio-hyoideus.

Muscles

Muscles of the Tongue and Pharynx.

Of the Tongue.

Hyo-styloglossus.

Genioglossus.

Lingualis.

Of the Pharynx.

Constrictores Pharyngis.

Palatopharyngeus.

Stylopharyngeus.

*Muscles of that part of the Pharynx called
Palatum Molle, or, Velum Pendulum
Palati.*

Constrictor Isthmi Faucium.

Levator Palati Mollis.

Circumflexus Palati.

Azygos Uvulæ.

It is necessary, notwithstanding, the natural arrangement of these Muscles, to follow them in the order of dissection: and first of the

Sterno-

Sternothyreoides.

Is long, slender, and flat, arising from the summit of the Sternum and Cartilage of the first Rib internally; it ascends over the Thyreoid Gland, to be inserted into the external part and inferior edge of the Thyreoid Cartilage.

Use.—To depress the Larynx.

N. B. This Muscle should not be separated.

Sternohyoideus,

Is similar to the last, and arises from the cartilaginous extremity of the first Rib, and parts adjoining of the Sternum and Clavicle internally. It is inserted into the inferior margin of the base of the Os Hyoides, and serves to depress it.

K

Coraco-

Coracohyoideus.

See above, Page 92.

Mylohyoideus.

ARISES fleshy, broad, and thin at the inside of the lower jaw continually from the last Dens Moralis to the Symphysis, where there is an intermediate tendinous line between it and its fellow: they pass transversely to meet at the lower edge of the basis of the Os Hyoides, where they are inserted.

Use.—To raise the Os Hyoides forwards; and laterally, as either acts.

Digastricus, seu, Biventer Maxillæ Inferioris.

THE posterior belly arises fleshy, intermixed with tendinous fibres, from the Fossa within the base of the mastoid process; which belly descending forward, forms a
Tendon

Tendon as it passes through the Stylohyoideus, and is connected there by a ligament and some muscular fibres to the Os Hyoides; it thence rises obliquely upwards and forward, forming another fleshy Belly, which is inserted into a rough sinuosity, at the interior edge of the lower Jaw, near the Symphysis.

Use.—To open the Mouth; and when the Jaw is fixed, to raise the Larynx, and parts connected to it.

Stylohyoideus.

ARISES by a round Tendon from the basis of the Styloid process; splits for the transmission of the Digastricus, immediately above its insertion into the base of the Os Hyoides, at the junction of the base and cornu.

Use.—To raise the Os Hyoides laterally.

Stylo-hyoideus Alter.

Is a more slender Muscle, having the same origin, insertion, and use as the former, it sometimes appears to accompany the Stylopharyngeus, and is even to be met with double.

Genio-Hyoideus.

ARISES tendinous from a protuberance of the Symphysis of the Maxilla Inferior internally; and is inserted into the basis of the Os Hyoides, under the Mylo-hyoideus, and close to its fellow. They raise this bone forwards.

Hyoglossus, & Styloglossus.

HAVE been described as four Muscles by Albinus, who seems to have paid too much attention to *Lusi Naturæ*: by Douglas,

Douglas, as two; and by Winslow, as three. With every respect for so great authorities the Editor presumes they are but one.

Hyo-Styloglossus.

THAT part described as Hyoglossus, arises broad and fleshy from the base cornu and appendix of the Os Hyoides; the fibres run streight upwards, to be inserted into the other part called Styloglossus, which arises tendinous and fleshy from the point of the Styloid Process, and from the Ligament which connects it to the Angle of the lower Jaw; it adheres as it traverses the side of the Tongue where it is united with the Hyoglossus, and they are lost towards the Apex.

Use. — They retract the Tongue, and together with the anterior Muscles apply it to the Palate, as in deglutition.

Basioglossus, Ceratoglossus, Chondroglossus, & Styloglossus.—*Alb.*

Winslow describes them under the common names, yet mentions their union.

Genio-hyo-glossus.

ARISES slightly tendinous from the Symphysis of the lower Jaw, its fibres run from thence down and are curved backwards, forming a fan-like appearance; they are inserted into the tip, middle, and root of the Tongue, with the base of the Os Hyoides.

Use. — To advance the Os Hyoides while the Tongue is thrust out of the Mouth.

Lingualis.

UNDER this name may be arranged the muscular fibres which compose the body of the Tongue.

N. B. The Sterno-hyoideus should be removed before the dissection of the subsequent Muscles.

Hyothy-

Hyothyreoideus.

ARISES fleshy from part of the basis, and most of the cornu of the Os Hyoides; is inserted into the same oblong eminence on the Thyreoid Cartilage, as the Sternothyreoideus.

Use. — To approximate the parts to which it is fixed.

Cricothyreoideus.

ARISES from the side and forepart of the Cricoid Cartilage, runs obliquely upwards, and is inserted by two partitions, one into the lower part of the Thyreoid Cartilage, the other into its inferior Cornu.

Use.—To approximate the Cartilages.

To obtain an accurate view of the Muscles of the Pharynx, it may be necessary to saw through at the Symphysis of the lower Jaw, after the Muscles of the Face have

have been dissected: or, the Sternothyreoidei, formerly preserved to retain the Muscles of the Tongue in an extended state, may be separated; and if it is thought proper to sacrifice the Muscles on the anterior part of the Spine, the Trunk may be removed, leaving two or three Vertebrae attached to the Head.

Stylopharyngeus.

ARISES fleshy from the middle of the Styloid process, and is inserted in conjunction with the Palatopharyngeus, into the side of the Pharynx, opposite to the superior Cornu of the Thyroid Cartilage.

Use.— To dilate, and raise the Pharynx.

Circumflexus, seu, Tensor Palati.

ARISES from the spinous process of the Sphenoid bone, behind the Foramen Ovale which transmits the inferior Maxillary Nerve; from the Eustachian Tube, not far

far from its osseous part; passes down along the Pterigoideus Internus, sends its Tendon round the hook of the internal plate of the Pterygoid process, which spreading into a membrane, is reflected towards the Pharynx to be inserted into the Velum Pendulum Palati, and semilunar edge of the Os Palati, extending as far as the suture which joins the two bones, and by some of its posterior fibres, into the Constrictor Pharyngis, and Palatopharyngeus.

Use.—To stretch the Velum, draw it downwards, and laterally towards the hook: it can have little effect on the Tube, as it is chiefly connected to its Osseous Part.

Musculus Tubæ Novus Valsalvæ.

Vel, Palato Salpingeus.—*Dougl.*

Spheno Salpingo Staphilinus.

Spheno Staphilinus, & Salpingo Staphilinus Externus.

Pterygo Staphilinus Superior.—*Wins.* in several places.

Levator Palati Mollis.

ARISES tendinous and fleshy from the extremity of the Pars Petrosa of the temporal

poral Bone where perforated by the Eustachian Tube, and interior to the Tube; also, from the cartilaginous part of the Tube; it passes inwards and downwards, to be inserted into the Uvula and whole length of the Velum Pendulum Palati; it unites with its fellow, and sends a few fibres to the Tongue, in form of the Constrictor Isthmi Faucium.

Use.—It applies the Velum to the apertures of the Nostrils and Eustachian Tube; and, possibly, also closes the Isthmus of the Fauces during deglutition.

Petro-Salpingo-Staphilinus, feu, Salpingo-Staphilinus Internus.—*Wins.*

Salpingo-Staphilinus Valsalvæ.

Pterygo Staphilinus Externus, *vulgo.*—*Dougl.*

C H A P. IX.

O F T H E

P H A R Y N X.

THAT moveable fleshy curtain called Velum Pendulum Palati, which forms the posterior part of the Mouth, and performs the office of a Valve to the Mouth during manducation, and to the Nostrils in deglutition; presents the appearance of an arch supported by two columns at each side, while the Uvula hangs down from the summit into the Throat. The anterior column descends to the root of the Tongue, and is the boundary of the Fauces; the posterior column composed of the Levator Palati Mollis, to the Pharynx; and between the columns are the Tonsils. The Cavity of the Pharynx opens upwards by the Nostrils: laterally to the Tympanum, by the Eustacian Tubes; anteriorly to the Mouth; posteriorly through the *Æsophagus* to the Stomach; and inferiorly to the Lungs, through the Glottis, Larynx, and Trachea;

Trachea; it is composed of a muscular partition arising from the basis of the Cranium, which from the action of its fibres is called Constrictor.

The upper portion is,

Constrictor Pharyngis Superior.

The 2d. _____ Medius.

The 3d. _____ Inferior.

Constrictor Pharyngis Superior.

ARISES from the Cuneiform process of the Os Occipitis, anterior to the Foramen Magnum; from the Pterygoid process of the Os Sphenoides, and from each Jaw near the last Dens Molaris, being there continuous with the Buccinator: the fibres of both sides meet in a middle perpendicular Linea Alba, posteriorly.

Constrictor Ph. Medius.

ARISES from the horn and appendix of the Os Hyoides, and from the ligament which unites it with the Thyroid Cartilage: the

the fibres terminate as the former, being also produced into a point inserted at the cuneiform process of the Os Occipitis.

Constrictor Ph. Inferior.

ARISES from the Cricoid and Thyroid Cartilages: The fibres terminate as the foregoing in the Linea Alba.

Use.—To raise and constrict the Pharynx, each portion successively.

Cephalo-Pharyngeus; Pterygo-Pharyngeus; Mylo-Pharyngeus; Glosso-Pharyngeus; Hyo-Pharyngeus; Syndesmo-Pharyngeus; Thyro-Pharyngeus; Crico-Pharyngeus.—
Douglass.

Winflow has given names to this Muscle on the same principle; that is, according to the different attachments:—as,

Glosso-Pharyngeus; Pterygo-Pharyngeus; Genio-Pharyngeus; Petro-Pharyngeus; Hyo-Pharyngeus; Cephalo-Pharyngeus; Thyro-Pharyngeus; Crico-Pharyngeus,

L

Constrictor

Constrictor Isthmi Faucium.

Is a fasciculus of fibres extended from the Uvula to the Tongue, and forming the anterior column of the Arch.

If any such Muscle exists, it is extremely indistinct.

Palato-Pharyngeus:

ARISES by a broad beginning from the middle of the *Ossa Palati*, at the root of the Uvula; close to its fellow; from the membranous expansion of the *Circumflexus Palati*, and inner plate of the *Pterygoid process*; the fibres proceed within the posterior arch behind the Tonsils; and backwards to the upper and lateral part of the *Pharynx*, where they are spread and mix with those of the *Stylo-Pharyngeus*: some are inserted into the upper edge of the *Thyroid Cartilage* posteriorly, and several are lost between the membrane of the *Pharynx* and *Constrictors*.

Use.—It retracts the Uvula and Velum; and at the same time raises and shortens the
the

the Pharynx : it assists the superior fibres of the Constrictors and the Tongue in shutting the Nostrils during deglutition, and urging on the food from the Fauces into the Pharynx.

Thyreo-staphilin. — *Dougl.*

Idem, & Pharyngo-staphilin, vel
Thyro-pharyngo-staphilin, cum
Peristaphili-pharyngeo. — *Wins.*

The Salpingo pharyngeus of Albinus appears to be one head of this Muscle, which when present, arises from the Eustachian Tube.

Azygos Uvulae.

ARISES fleshy from the extremity of the suture which joins the palate bones ; it is also connected with the Levatores Palati ; extends the whole length of the Uvula, resembling a small earth-worm.

Use. — By shortening, it raises the Uvula.

This Muscle is frequently so indistinct as to be very difficultly discoverable.

C H A P. X.
OF THE
MUSCLES *of the* RIMA GLOTTIDIS.

Crico-arytenoideus Posticus.

ARISES fleshy from the back part of the Cricoid Cartilage, and is inserted into the base of the Arytenoid Cartilage posteriorly. It opens the Rima, and stretches its Ligaments.

Crico-arytenoideus Lateralis.

ARISES laterally and fleshy from the Cricoid, where it is covered by the Thyroid Cartilage; and is inserted into the side of the base of the Arytenoid Cartilage, near the former: when both act, they separate the Arytenoid Cartilages, and so open the Rima Glottidis.

Aryte-

Arytenoideus Obliquus.

THE Muscle of each side arises from the base of one Arytenoid Cartilage; crosses each the other, and is inserted into the tip of the other Arytenoid Cartilage; which they approximate, and close the Rima.

Arytenoideus Transversus.

Is a single Muscle arising from the inside of one Arytenoid Cartilage, near its articulation with the Cricoid Cartilage, and extending straight across to the same part of the other, by the approximation of both it closes the Rima.

Arytenoideus Major.—*Dougl.*

Thyro-arytenoideus.

CONSISTS of some disgregated fleshy fibres arising from the interior and anterior
 L 3 angle

angle of the Thyroid Cartilage laterally; go to be inserted into the Arytenoid Cartilage over the insertion of the Crico-arytenoideus Lateralis. As this Muscle in its passage is connected to the ventricle of the Larynx, it probably compresses it.

Thyro-epiglottideus, & Aryteno-epiglottideus.

NOTWITHSTANDING the rational conclusion which may be formed of the existence of these Muscles, from the coaptation of the Epiglottis to the Rima, during deglutition: yet the Editor is free to confess he has never ascertained their existence; a circumstance he is not at all singular in asserting, as the too accurate Albinus leaves them unnoticed; and in that most excellent Compendium of Leber, he asserts, that they are frequently wanting, or too small to be considered as Muscles; the depression of the Epiglottis may therefore be attributed to the motion of the Tongue backwards, in swallowing: and it would be very difficult indeed, to shew how the
Tongue

Tongue could be retracted, without at the same time pushing down the Epiglottis.

BEFORE the dissection of the Muscles of the Maxilla Inferior, it may be convenient to remove the Muscles of the external Ear, or leave them uninjured at one side, to be afterwards prepared with those of the Head.

C H A P. XI.

OF THE
MUSCLES *of the* MAXILLA
INFERIOR.

MASSETER.

Temporalis.

Pterygoideus Internus.

———— Externus.

Digastricus. (See Page 98.)

Masseter.

ARISES by two portions of fleshy and tendinous fibres from the Malar process of the Maxillary Bone adjoining the Os Malæ, and its origin it is continued along the lower edge of this last, and of the Zygoma as far back as the tubercle before the socket for the Condyle of the lower Jaw: the posterior and inner portion runs forwards and down; the anterior, directly down, in some measure decussating each other; and are
inserted

inserted into the angle of the lower Jaw, along an extent reaching to the middle of it, and to the outside of its Coronoid process.

Use.—When the whole Muscle acts, it raises the Jaw ; which, if advanced, will be retracted by the posterior portion.

Pterygoideus Internus.

Is situated within, as the Masseter is without the Jaw ; it arises tendinous and fleshy from the inner surface of the external, and outer surface of the internal plate of the Pterygoid process, filling the Fossa Pterygoidea, and from the process of the Os Palati which makes up part of said Fossa ; it passes obliquely backward, to be inserted into the angle of the lower Jaw internally, and thence is continued as far as the groove for the inferior Maxillary Nerve.

Use.—To raise the Jaw ; but to a side if one acts.

Pterygoideus Magnus, seu, Internus.—

Wins.

Ptery-

Pterygoideus Externus.

Is situated horizontally along the basis of the Cranium; the thick portion of it arises from the outer side of the external plate of the Pterygoid process, and between it and the Condyle of the lower Jaw, the thin portion from the root of the temporal process of the Os Sphenoides, being sometimes quite distinct; from these originations the fibres converging pass outwards, and a little backwards, to be inserted into a depression on the condyle and neck of the lower Jaw, and by a few of its fibres, into the moveable Cartilage.

Use.—If one acts, it rotates the Jaw to the opposite side; if both, they project it forward, in which they antagonize the Temporalis: and these movements are produced both when the Jaw is raised and depressed; it pulls the Cartilage forward in these motions.

Pterygoideus Parvus, seu Externus.—

Wins.

Temporalis.

Temporalis.

Is a flat radiated Muscle, covered above the Zygoma with a strong Fascia from whence it in part arises fleshy; also from the whole bony surface, within a semicircular white ridge beginning at the Os Malæ anteriorly, bending from the Os Frontis across the parietal bone, towards the Maxillary process; and from the Zygoma under which it is continuous with the Masseter: the Fibres collect under the Zygoma, and form a Tendon which is inserted into, and encompasses the Coronoid process of the lower Jaw, being continued down its inside, near to the last Dens Molaris; in this course it bends forward under the root of the Zygoma, by which means it is enabled to pull the Jaw up and a little backwards, and thus becomes an antagonist to the Pterygoideus Externus.

Crotaphite Muscle.—*Wins.*

C H A P. XII.

OF THE
MUSCLES *of the* HEAD and NECK,

Situated anteriorly on the SPINE.

Rectus Capitis Internus Major.

COVERS the outer edge of the Longus Colli, and arises from the anterior point of the transverse process of the second or third, and by distinct heads from the three succeeding superior cervical transverse processes; and unite in a single termination, extended from the Foramen of the eighth Nerve to the point of the cuneiform process exteriorly. This Muscle has sometimes additional terminations on the Vertebrae, or communications with the Scaleri.

Use.—To incline the Head and Neck forward, and assist in rotating them.

Rectus Anterior Longus.—*Wins.*

Rectus

Rectus Capitis Internus Minor.

ARISES fleshy from the upper part of the body of the Atlas, at the base of its transverse processes, and ascends obliquely inward to be inserted near the root of the Condyle of the Occiput; under, and somewhat exterior to the former Muscle.

Use.—To nod, and assist in rotating the Head.

*Rectus Anterior Brevis.—Wins.**Rectus Capitis Lateralis.*

ARISES fleshy from the superior part of the transverse process of the Atlas, and ascends obliquely outwards to be inserted into the margin of the Os Occipitis, which forms the posterior brim of the Foramen for the internal Jugular Vein, and part of the Os Temporis behind.

Use.—To incline the Head while in rotation.

M

Trans-

Transversalis Anticus Primus.—*Wins.*

Is not this properly one of the Intertransversarii?

Longus Colli.

Is composed of two Muscles connected to each other; it commences by a series of seven distinct and somewhat tendinous Heads, from the bodies of the three superior Dorsal Vertebrae, and transverse processes of the succeeding and inferior cervical, close to their bodies: the lowest is sometimes wanting; or two additional may arise from the third Rib, and the sixth, or seventh cervical Vertebrae. The common Muscle ascends thence, and divides; the exterior part has one, two, or three terminations on the sixth, fifth, or fourth cervical transverse processes, the Rectus Internus beginning where the uppermost of them ends: the other part or Muscle ascends on the bodies of the Vertebrae, inclining somewhat inward, and is joined by the

the originations from the transverse processes ; it is fixed by broad insertions on the bodies of four or more superior cervical Vertebrae, and in conjunction with the extremity of its fellow, on the middle of the Atlas.

Use.—To bow the Head and Neck, and assist in rotating them.

C H A P. XII.

OF THE
MUSCLES *of the* CRANIUM.*Epicranius.*

FORMS a compleat Integument of the Cranium; it commences fleshy posteriorly where it is named Occipitalis, from the transverse exterior ridge, extending from the middle of the Os Occipitis laterally; tendinous from the extremities of that ridge, and as far as the maxillary process; from thence it ascends streight forward by a broad Aponeurosis which covers the Cranium as low down as the Attollens Auriculæ to which it is connected, and to the Zygoma: covers part of the Aponeurosis of the temporal Muscle, and when it proceeds as far forward as near the margin of the hair of the front, it becomes fleshy, is called Frontalis, and descends with streight parallel fibres, to be inserted into the Orbicularis Palpebrarum of each side, into the

the internal angular process of the Os Frontis, into the skin of the Eye-brows, and sends down a fleshy slip between, to be inserted into the Compressor Nasi and Levator Labii Superioris Alæque Nasi.

Use.—The Occipitalis pulls the Scalp back; the Frontalis pulls it forward, and wrinkles the brow; it also assists the nasal Muscles connected with it.

Frontalis & Occipitalis.—*Wins.*

Occipito-Frontalis.—*Dougl.*

Corrugator Supercilii.

CONSISTS of a few fleshy Fasciculi, partly furnished by the under edge of the Frontalis which is inserted into the Os Frontis, partly by the upper and outer edge of the Orbicularis Palpebrarum.

Musculus Supercilii.—*Wins.*

Musculus Frontalis Verus, seu Corrugator.—*Dougl.*

C H A P. XIII.

OF THE
MUSCLES *of the* EXTERNAL EAR.*Attollens Auriculæ.*

MIGHT with propriety be esteemed part of the Epicranius, from the Tendon of which it arises over the Aponeurosis of the temporal Muscle; the fibres converge into a Tendon, which is inserted into the anterior and superior surface of the Concha of the Ear, opposite to the Antihelix.

Superior Auris.—*Wins.*

This Muscle is sometimes very indistinct.

Anterior Auriculæ.

ARISES aponeurotic from the Epicranius above the middle part of the Zygoma, and is inserted into the back of that eminence of the Helix which bounds the Concha.

Use.

Use.—To raise this part of the Concha forward.

This Muscle is sometimes perfectly indistinct, or wanting.

Retrahentes Auriculæ.

ARISE frequently by three, always by two distinct small Muscles from the Mastoid process being there continuous with the Epicranius above the Sterno-cleido Mastoideus. It is inserted into that part of the back of the Ear opposite to the Septum, which divides the Scapha and Concha.

Use.—It retracts the Ear, and stretches the Concha.

Posterior Auris.—*Winf.*

THE existence of the following Muscles may be doubted; some of the best Anatomists, as Winslow and Lieutaud, are silent as to them, and Drake has denied their presence: there are, however, red fibres which

which have the appearance of being muscular, and are as follow :

Helicis Major.

ARISES from the upper part of the acute process of the Helix on which it ascends, and into which it is inserted, and is supposed to depress it.

Helicis Minor.

ARISES from the inferior part of the Helix, and is inserted into the Crus of the same, near the fissure in the Cartilage opposite the Concha : which fissure it is supposed to contract.

Tragicus.

ARISES from the middle and outer part of the Concha, at the root of the Tragus, along which it runs and terminates at its point, which it depresses.

Anti-

Antitragicus.

ARISES from the tip of the Antitragus exteriorly, and ascends from thence to the inferior part of the Antihelix (on the outer margin of the Concha) to which it is inserted at the angle of a fissure in the Cartilage, and behind the Antitragus.

Use.—It approximates the Antitragus and Antihelix, and renders tense the margin of the Concha.

Transversus Auriculæ.

Is said to arise on the hollow surface of the Concha, to pass backwards and upwards to be inserted into the Antihelix and surface of the Scapha. Albinus, who asserts that he has seen the former Muscles in action, admits that in this he never observed any motion.

C H A P. XIV.

OF THE
MUSCLES *of the* EYELIDS.*Orbicularis Palpebrarum.*

IS a sphincter Muscle, which, by reason of an interindination adhering to the orbiter process of the maxillary bone at the inner Canthus, may be said to arise there, and also by a number of fleshy fibres which proceed in circles like a tegument under the skin, all over the under eyelid and upper part of the cheek below the orbit, surround the external Canthus, cover the superciliary ridge and upper eyelid, and return to the inner Canthus, where they adhere to the internal angular process of the Os Frontis, and aforesaid interindination which covers the anterior and upper part of the Lachrymal Sac, being mixed above with the Epicranium and Corrugator.

Use.—It closes the Eyelids, by depressing the Superior; and by contracting from the outer towards the inner angle, as
Mr.

Mr. Innes has asserted, they convey the tears towards the Puncta Lacrymalia:

Ciliaris

OF RIOLANUS, is that portion of the Orbicularis which covers the Tarsus of the Eyelids.

Levator Palpebrae Superioris.

CANNOT be dissected except with the Muscles of the Globe of the Eye. (Which see p. 140.)

C H A P. XV.

O F T H E

MUSCLES *of the* NOSE *and* MOUTH.

Levator Labii Superioris Alæque Nasi.

ARISES by a semilunar edge below the brim of the Orbit, beginning superiorly on the nasal process of the superior maxillary bone at the inner Canthus adjoining the Os Frontis, it descends along the edge of the lachrymal groove; inferiorly from the external part of the orbital process of the maxillary bone, which forms the lower part of the Orbit, immediately above the Foramen Infraorbitarium; it passes down to be inserted into the Orbicularis Labiorum superiorly, and outer part of the Ala Nasi.

Levator Labii Superioris, & Levator Lab. Sup. Alæq; Nasi.—*Alb.*

Incisivi lateralis Portiones Duæ.—*Wins.*

Levator communis, &c.—*Haller.*

Compressor

Compressor Naris.

ARISES by a narrow beginning close to, and connected with the Levator Alæ Nasi, and from the root of the Ala Nasi externally, where it is firmly joined with the depressor; it spreads into a number of thin disgregated fibres which ascend spreading over the Cartilage towards the Dorsum of the Nose, and is there joined by a membrane with its fellow, and with the descending portion of the Epicranius.

Use.—When the base of the Ala is fixed by the Depressores, to compress the Cartilage; but if the fibres of the Frontalis which adheres to it act, they raise the Ala outwards, as in acute smelling.

Rinæus, vel Nasalis.—*Dougl.*

Levator Anguli Oris.

ARISES thin and fleshy under the Levator Labii Superioris, in the hollow of the superior maxillary bone beneath the Foramen

N

Infra-

Infraorbitarium, and between it and the alveolar process of the first Dens Molaris; it descends to be inserted into the Orbicularis Oris, at the angle of the Mouth, and some of its fibres are continued into the Depressor.

Elevator Labiorum Communis.—
Dongl. & Haller.
 Caninus.—*Wins.*

Zygomaticus Major.

ARISES fleshy from the Os Malæ, near the Zygomatic Suture, descends obliquely forward, to be inserted into the angle of the Mouth; and is continued inferiorly, to be inserted into the Depressor Anguli Oris.

Use.—It raises the angle of the Mouth in the direction of its fibres, as in laughing.

Zygomaticus.—*Dongl.*

Zogomaticus

Zogomaticus Minor.

WHEN present, is perfectly similar to the former, except in size, and that it rises a little higher on the Os Malæ.

Orbicularis Oris.

Is a compleat Sphincter furrounding the Mouth, forming the Lips, and apparently composed of the concurrent fibres of all the Muscles which terminate in it.

Use.—To close the Lips, and constringe the Mouth, by which it antagonizes the preceding Muscles, and is congeneric with the Depressor.

Orbicularis Superior & Inferior.—*Haller.*

Sphincter Labiorum.—*Dougl.*

Semi-Orbicularis.—*Wins.*

Nasalis Labii Superioris.

CONSISTS of some fibres of the former, connected to the Septum Nasi.

Depressor Anguli Oris.

ARISES broad and fleshy from the lower edge of the Maxilla Inferior, at the side of the Chin; and from the Latissimus Colli; ascends to be inserted into the angle of the Mouth, and is partly continuous with the Zygomaticus Major, and Levator Anguli Oris.

Triangularis.—*W. & Hal.*

Depressor Labiorum Communis.—*Doug.*

Buccinator.

Is the thin muscular tegument of the Cheek, which arises tendinous and fleshy from an acute ridge of the lower Jaw, extended

tended from the last Dens Molaris to the root of the coronoid process; thin and fleshy from the alveolar process of the upper Jaw, behind the last Dens Molaris; between them, from the hook of the pterygoid process, by a slender Tendon, and is there continuous with the Constrictor Pharyngis Superior; from thence proceeding forward, and lined by the Membrane of the Mouth, it is inserted into the angle of the Orbicularis Oris internally, which it retracts; and by diminishing the cavity of the Mouth, it thrusts the food between the Teeth in manducation.

Depressor Labii Inferioris.

ARISES broad and fleshy intermixed with fat, above the Depressor Anguli Oris; from the inferior part of the lower Jaw next the Chin, and often receives fibres from the Latissimus Colli; runs upwards to be connected with its fellow, and inserted into the edge of the under Lip, extending along one half of it.

Use.—To depress the Lip and integuments on the side of the Chin.

Quadratus.—*Wins. & Hal.*

Depressor Lab. Inf. Proprius.—*Dougl.*

Depressor Labii Superioris Alaeque Nasi.

WHEN the Lip is turned up, and the skin removed from the inside, this Muscle may be seen to arise thin and somewhat tendinous from the alveolar process of the Os Maxillare Superius, immediately above the joining of the Gums with the Dens Cuspidatus, and two Incisivi, from thence it ascends directly; to be inserted into the teguments at the base of the Septum, and round the root of the Ala Nasi, where it is connected to the Compressor Naris.

Use.—See the name. It is also antagonist to the Elevators.

Depressor Alæ Nasi.—*Alb.*

Incisivus Medius.—*Wins.*

Depressor lab. Sup. Proprius.—*Dougl.*

Levator

Levator Labii Inferioris.

THE Lip must be inverted to expose its origin from the alveolar process of two Dentes Incisivi, and one Cuspidatus; it descends to meet and mix with its fellow on the Chin, where there is much fat interwoven in its substance, by raising of which it elevates the Lip also.

Levator Menti.—*Alb.*

Incisivus Inferior.—*Wins.*

Elevator Labii Inferioris Proprius.—*D.*

C H A P. XVI.

OF THE
MUSCLES *of the* GLOBE *of the* EYE.

THEY are four Recti, and two Obliqui; the four Recti are perfectly similar; arise by a narrow beginning a little tendinous, at the bottom of the Orbit, round the Foramen Opticum, and may be taken out adhering to the Dura Mater of the Nerve; they have all fleshy bellies, and advance to be inserted distinctly at the fore-part of the Globe into the Tunica Sclerotica. The

Rectus Attollens; Elevator.—D.

Into the superior and fore-part, by an Aponeurosis. The

Rectus Deprimens,

In the same form, inferiorly and opposite to the Attollens. The

Rectus Adducens

Which

Which is the shortest, is inserted next the inner Canthus. And the

Rectus Abducens

Which is longest, next the outer Canthus.

Their names express their uses.

Levator Palpebræ Superioris.

ARISES immediately over the Rectus Attollens, spreads gradually as it advances above the Eye, to be inserted by an Aponeurosis into the Cartilage named Tarsus, which forms the rim of the Eyelids.

It is, when in action, antagonist to the Orbicularis Palpebrarum.

Aperiens Palpebram Rectus.—D.

Obliquus.

Obliquus Superior Oculi, seu Trochlearis.

ARISES as the streight Muscles internally close to the Levator Palpebræ, from thence it proceeds swelling in the middle to the greater Canthus, where its Tendon passes downwards through a cartilaginous pulley, which is fixed to the internal angular process of the Os Frontis, in which it is covered with a lubricous sheath; and is thence reflected down and outwards to be inserted aponeurotic into the Sclerotica, a little beyond the Attollens.

Use.—To roll the Globe towards the greater Canthus, and turn the Pupil down and outwards.

*Obliquus Major.—W.**Obliquus Inferior Oculi.*

ARISES by a narrow beginning from the outer edge of the orbital process of the Maxillary Bone near its juncture with the Os Unguis, and passing obliquely outward
over

over the Abducens; is inserted by an Aponeurosis into the Sclerotica, in the space between the Abducens and Optic Nerve.

Use.—To bring the Globe forward and inward, and to turn the pupil upwards contrary to the Obl. Superior.

Obliquus Minor.—*Wins.*

C H A P. XVII.

OF THE
MUSCLES *of the* INTERNAL EAR.*Laxator Tympani.*

ARISES by a small beginning from the extremity of the spinous process of the Os Sphenoides, behind the Foramen Spinosum; then running backwards and a little upwards, along with the Chorda Tympani of the lingual branch of the inferior maxillary nerve, its Tendon enters a fissure of the Os Temporis, interior to the articular fossa of the same: and is inserted into the long process of the Malleus, within the Tympanum.

Use.—To draw the Malleus forward towards the Tube, consequently the Membrana Tympani attached to it, by which the membrane is relaxed.

Externus Mallei.—*Alb. Leb. & Du Vern.*
Anterior Mallei.—*W.*

The

The *Laxator Tympani* of Albinus, appears to be different from the last, as he describes it to arise from the Tympanum at the Eustachian Tube, and to be inserted into the short process of the Malleus. Its use the same as the former. However, the muscular nature of either is doubtful.

Tensor Tympani.

ARISES by a very small beginning from the superior part of the cartilaginous extremity of the Eustachian Tube, where connected to the base of the Cranium, and about the entrance of the Arteria Meningea Media; from thence swelling as it proceeds backwards, it diminishes again and forms a very slender Tendon, enclosed all along in a semioffeus groove over the tube, which is compleated by an aponeurotic sheath; it is continued into the Tympanum with the Chorda Tympani, declining gently out and upwards; the

O

Tendon

Tendon emerges from its sheath, turns on a Trochlea, and inclining backwards, proceeds towards the Membrana Tympani, and is inserted towards the bottom of the Tympanum opposite to the membrane, into the small process of the Malleus; it pulls the Manubrium forward, and with it the membrane, which is rendered tense.

Internus Mallei.—*Wins.*

Internus Auris.—*Dougl.*

The sheath which invests this Muscle must be opened to exhibit it.

Stapedius.

ARISES by a small fleshy belly, from a little cavern of the Pars Petrosa in the Tympanum, before the inferior part of the Foramen for the Portia Dura of the auditory nerve; its Tendon ascends obliquely forward through a small hole, to the posterior part of the head of the Stapes, which it draws

draws to the cavern, by which the posterior part of its base is moved into the Vestibulum while the anterior part recedes.

Musculus Stapedis.—*Wins.*

Stapidæus.—*Doug.*

C H A P. XVIII.

OF THE
MUSCLES *of the* UPPER EXTRE-
MITY.

MUSCLES of the Shoulder which
move the Scapula. (See p. 43.)

The Muscles of the Arm, or Os Humeri, are

Deltoides,
Supra-spinatus,
Infra-spinatus.
Coraco-brachialis.
Pectoralis, p. 58.
Latissimus Dorsi, p. 45.
Teres Major.
Teres Minor.
Subscapularis.

Deltoides.

Deltoides.

ARISES fleshy from all the exterior part of the Clavicle which the Pectoralis does not possess, tendinous and fleshy from the Acromion, and lower margin of almost the whole spine of the Scapula opposite to the insertion of the Cucullaris; from which origins it runs to a point in three different directions, *i. e.* outwards from the clavicle, forwards from the spine of the Scapula, and streight downwards from the Acromion: it is composed of strong Fasciculi, covers the anterior part of the joint of the Humerus, and has a large Bursa Mucosa beneath. It is inserted tendinous into a rough protuberance on the forepart of the joint of the Os Humeri, near its middle, where the fibres of this Muscle intermix with some part of the Brachialis.

Use.—To raise the Arm a little forwards or backwards in the different directions of its fibres.

Supra-spinatus.

ARISES fleshy from, and occupies all that part of the Scapula above its Spine, from whence as it passes under the Acromion, it adheres to the capsular ligament of the Os Humeri; and is inserted tendinous into that part of the protuberance on the head of it next the Bicipital Groove.

Use.—To raise the Arm; and at the same time the capsular ligament, to prevent contusion of it between the bones.

Infra-spinatus.

ARISES fleshy from that part of the Scapula below its Spine as far as the Cervix Scapulæ, the fibres ascend to a point, adhere to the capsular ligament as they pass over it; to be inserted by a thick flat Tendon into the upper and posterior part of the same protuberance as the last.

Use.—To raise the Arm backwards, and the Capsular Ligament.

N. B. These two last Muscles are covered by an Aponeurosis, from which many

many of their fibres arise, and which must be raised to shew them, without prejudice to the *Teres Major*.

Teres Major.

ARISES fleshy from the dorsum of the inferior angle of the Scapula, and from all that portion of the inferior Costa which is rough, and thicker than the rest; its fleshy fibres are continued over the *Infra-spinatus* Muscle, to which they firmly adhere as they ascend; to be inserted by a broad, short, and thin Tendon into the inner brim of the bicipital Groove along with the *Latissimus Dorsi*. There is a *Bursa Mucosa* under this Muscle.

Use.—To move the Arm backwards and downwards, and rotate the head of the *Os Humeri*.

Teres Minor.

ARISES externally fleshy from all the round edge of the inferior Costa of the Scapula, superior to the *Teres Major*; ascends

ascends along the inferior edge of the Infra-Spinatus, adheres to the Capsular Ligament, and is inserted tendinous into the outer part of the protuberance on the head of the Os Humeri, a little below the Infra-spinatus Muscle, which it assists, but retracts the Arm more directly.

Coraco-brachialis.

ARISES tendinous and fleshy from the forepart of the coracoid process in conjunction with the short head of the Biceps; and is inserted into a Tendon which is stretched from the Head to the middle of the internal part of the Os Humeri, near the origin of that head of the Triceps called Brachialis Externus; from whence it sends down an Aponeurosis to the internal condyle of the Os Humeri, which separates the Brachialis Internus and Externus.

Use.—To raise the Arm.

The Musculo-Cutaneus Nerve passes through this Muscle.

Subscapularis.

Subscapularis.

ARISES from all the base of the Scapula, and from its superior and inferior Costæ internally, being composed of several distinct portions which make prints on the Bone, and join to fill up the concavity of the Scapula: in passing the joint this Muscle adheres to the Ligament; it is inserted tendinous to the upper part of the internal protuberance at the head of the Os Humeri.

Use.—To bring the Arm inwards, and rotate it.

Muscles of the Fore-arm.

ARE Flexors, as,

Biceps Flexor Cubiti.

Brachialis Internus.

Or, Extensors, as,

Triceps Extensor Cubiti.

Anconeus.

Biceps

Biceps Flexor Cubiti.

ARISES by two Heads, the long and tendinous one from the upper edge of the glenoid cavity of the Scapula, passes over the head of the Humerus within the joint; and in its descent without the joint, is enclosed in a proper groove near the head of the bone, by a membranous sheath which proceeds from the capsular Ligament and adjacent Tendons; the short head arises tendinous and fleshy in common with the Coracobrachialis: these heads unite a little below the middle of the forepart of the Os Humeri, and form a common belly which is inserted into the tubercle of the Radius internally, where there is a Bursa Mucofa: and it gives rise to the aponeurotic tegument of the Fore-arm.

Use.—It bends the Fore-arm, and supinates the Radius.

Brachialis Internus.

ARISES fleshy from the middle of the Os Humeri at each side of the insertion of the
the

the Deltoides, covering all the inferior and forepart of the Bone; it passes over the joint, adheres firmly to the Ligament, and is inserted by a short Tendon into the coronoid process of the Ulna.

Use.—To bend the Fore-arm.

Brachialis.—*Wins.*

The Extensors of the Fore-arm, are,

Triceps Extensor Cubiti.

ARISES by three heads; the first, or long one, broad and tendinous from the inferior costa of the Scapula near its Cervix: by the second, or short one, which is acute from the Os Humeri exteriorly a little below its head: and by the third, called Brachialis Externus, also acute from the Os Humeri, near the insertion of the Teres Major. Upon the posterior surface of the Os Humeri these heads unite, descend, and are inserted into the upper and external part of the Olecranon, and partly into the condyles of the Os Humeri, adhering firmly to the capsular Ligament. It is separated

rated from the Brachialis Internus by an Aponeurosis.

Use.—To extend the Arm.

Anconeus Major, Externus, & Internus.—*Wins.*

Biceps Externus, & Brachialis Externus.—*Dougl.* Also Triceps.

Anconeus.

Is continued from the third head of the Triceps, and also arises tendinous from the posterior part of the external condyle of the Os Humeri, being covered by an aponeurosis from the capsular ligament, it soon becomes fleshy and thin; and is inserted into a ridge on the radial side of the Ulna, which is continued from the Olecranon.

Use.—To extend the Fore-arm.

Anconæus Minor.—*Wins.*

Anconæus, vel Cubitalis.—*Dougl.*

N. B. As to the remaining Muscles of the Fore-arm it may be premised in general: that all the Extensors and Supinators arise from the external Condyle; all the Flexors and Pronators from the internal Condyle of the Os Humeri.

C H A P. XIX.

OF THE
EXTENSORS *of the* FORE-ARM.*Supinator Radii Longus.*

ARISES acute and fleshy from the ridge of the Os Humeri, above the external Condyle, nearly as high up as the middle of the bone; and is inserted into the thumb-side of the head of the Radius, which it rolls outwards, and consequently turns the palm upwards.

Extensor Carpi Radialis Longior, & Brevior.

ARISES in continuation with the last from the external ridge of the Os Humeri as far down as the capsular ligament; and from the same where it connects the Radius to it;

it; runs along the posterior edge of the Radius, and divides into two Tendons, the longer of which is inserted into the thumb-side of the base of the metacarpal bone of the Index; the shorter into the base of the metacarpal bone of the Index at the finger-side; but to that of the middle-finger, at the thumb-side of the same.

Use.—Expressed in the name.

Radialis Externus Primus, & Secundus.—*Wins.*

Extensor Digitorum Communis.

ARISES acute, tendinous, and fleshy from the exterior condyle of the Os Humeri and capsular ligament, between the last and the next Muscle, having one common head; splits into three or four Tendons which pass under the Ligamentum Carpi Annulare Posterius to the fingers, where they are lost in an aponeurotic expansion which covers the back of each. A little above the heads of the metacarpal bones, these Ten-

dons usually transmit aponeurotic slips to each other.

Use.—To extend the Fingers.

Extensor Digiti Minimi Proprius.

WHICH is sometimes wanting, arises with the last Muscle, and between it and the next, also along the superior external half of the Ulna; from whence its slender Tendon proceeds close to the exterior one of the Extensor Communis, to the Auricularis or little Finger: when wanting, the Extensor Communis sends a double or triple Tendon to this finger; sometimes both are present.

Use.—In the name.

Extensor Proprius Auricularis.—Alb.

Extensor Carpi-ulnaris.

ARISES tendinous from the external Condyle of the Os Humeri and capsular ligament, exterior to all the other extensors; and
in

in its progress fleshy from the middle of the Ulna where incumbent on it: its Tendon is inclosed in a membranous sheath, situated in a groove posteriorly at the extremity of the Ulna: and is inserted into the base of the metacarpal bone of the little Finger, and at the same side; it extends a small Tendon to the base of the first Phalanx.

The name implies the use.

Ulnaris Externus.—*Alb.*

Cubitalis Externus.—*Wins.*

Supinator Radii Brevis.

ARISES tendinous from the external condyle of the Os Humeri; tendinous and fleshy from the exterior and upper part of the Ulna, and adheres to the interosseous ligament from whence it is reflected over the external edge of the Radius, to be inserted into the base and tubercle of the same, anteriorly and near the Biceps.

Use.—See the name.

N. B. The Extensors of the Thumb and Index being now uncovered may be dissected ; but that their antagonists may be seen at the same time, it will be necessary to proceed next to the Flexors and Pronators of the Fore-arm.

CHAP.

C H A P. XX.

OF THE
FLEXORS *and* PRONATORS *of the*
FORE-ARM.*Flexor Carpi Ulnaris.*

ARISES tendinous from the internal condyle of the Os Humeri ; and by a small fleshy beginning from the outside of the Olecranon, between which and the Condyle, the ulnar Nerve passes to the Fore-arm ; a number of fibres arise also from the aponeurosis of the Fore-arm. It is inserted by a short Tendon, into the Os Pisiforme ; at a little distance from its insertion, a small ligament is sent off to the metacarpal bone which sustains the little finger.

Use.—See name.

Ulnaris Internus.—*Alb. & Wins.*

Palmaris

Palmaris Longus.

WHICH is sometimes wanting, arises tendinous, from the internal condyle of the Os Humeri, soon forms a fleshy belly which sends off a long slender Tendon. To be inserted into the Ligamentum Carpi Annulare, and aponeurosis expanded on the palm of the Hand.

Use.—To bend the Hand, and stretch the Aponeurosis.

Ulnaris Gracilis.—Wins.

Palmaris Brevis.

ARISES by small disgregated fleshy fibres, from the skin and fat which cover the Abductor Minimi Digiti, and from the Os Pisiforme: is inserted into the Ligamentum Carpi Annulare, and Aponeurosis, expanded on the Palm.

Use.—To assist in contracting the palm of the Hand.

*Palmaris Cutaneus.—Wins.**Flexor*

Flexor Carpi Radialis.

ARISES tendinous and fleshy, from the internal condyle of the Os Humeri, and anterior part of the base of the Ulna, between the Pronator Radii Teres, and Flexor Sublimis, to which it is adherent; and is inserted by a flat Tendon into the fore and upper part of the metacarpal bone of the Index, after passing through a fossa in the Os Trapezium.

Use. — To bend the Wrist with the Hand.

Radialis Internus.—*Alb. & Wins.*

Pronator Radii Teres.

ARISES fleshy from the internal condyle of the Os Humeri, and tendinous from the coronoid process of the Ulna; passes on the fore part of the Arm: to be inserted thin, tendinous, and fleshy into the middle of the outer edge of the Radius, which it rolls with the hand, inwards.

Pronator Teres, seu Obliquus.—*Wins.*

Flexor

Flexor Sublimis Perforatus.

ARISES tendinous and fleshy, from the internal condyle of the Os Humeri; tendinous from the coronoid process of the Ulna, near the edge of the cavity which receives the head of the Radius; fleshy from the tubercle of the same, and membranous and fleshy from the middle of the forepart of the radius where the Flexor Pollicis Longus arises. Its fleshy belly sends off four round Tendons, before it passes under the Ligamentum Carpi Annulare; which are inserted into the base of the second phalanx of each finger, being divided near the head of the first phalanx, for the passage of the Perforans. Under the Ligamentum Carpi Annulare, they are enveloped by Bursæ Mucosæ in common with the next.

Sublimis.—*Alb.*

Perforatus.—*Dougl.*

Flexor

Flexor Profundus Perforans.

ARISES fleshy from the finger-side, and upper part of the Ulna, for some way downwards, and from a large share of the interosseous ligament; and divides into four Tendons, a little before it passes under the Ligamentum Carpi Annulare, which pierce the apertures in the Sublimis. To be inserted into the last phalanges of the Fingers, which they bend.

Profundus.—*Alb.*

Perforans:—*Dougl.*

Lumbricales.

ARISE thin and fleshy from the outside of the Tendons of the Profundus, a little below the Ligamentum Carpi Annulare; and are inserted by long slender Tendons, into the aponeurotic expansions of the Interossei which cover the backs of the Fingers, about the middle of the first Phalanx.

Use.—They rather appear to be *Tensores Vaginæ Aponeuroticæ*, than flexors of the Fingers.

Pronator

Pronator Radii Quadratus.

ARISES broad, tendinous, and fleshy, from the oblong ridge on the lower and finger-side of the Ulna; the fibres run transverse-ly, to be inserted into the lower part of the Radius, opposite to its origin.

Use.—Expressed in the name.

C H A P. XXI.

OF THE

EXTENSORS *and* ABDUCTORS *of*
the POLLEX *and* INDEX, *situated*
posteriorly.

Extensor Ossis Metacarpi Pollicis.

ARISES tendinous from a spine above the middle of the Ulna, and from the posterior surface of the Radius, externally and immediately under the Supinator Brevis ; fleshy from the intermediate part of the interosseous ligament : from thence singly, or divided into two Tendons confined in a sheath, as it bends over the head of the Radius, towards the base of the metacarpal bone of the Thumb ; and is expanded into a broad web, to be inserted into the head of the same bone interiorly. Or, if by two Tendons, one to the base, the other to the head : or, one to the Trapezium interiorly, the other to the base of the metacarpal bone. Sometimes the superior division of this Muscle furnishes those two

Q Tendons

Tendons, while the inferior forms part of the next Muscle; and generally there is a Tendon transmitted to the Abductor Brevis Pollicis.

Use.—To extend the Thumb as an Abductor; and in a good measure it is a Supinator.

Abductor Longus Pollicis Manus.—*Alb.*

Extensor Primus Pollicis.—*Wins.*

Extensor Primi Internodii Pollicis.—

Dougl.

Extensor Phalangis Primi Pollicis.

ARISES fleshy from the Ulna, immediately below, and exterior to the last Muscle; from the interosseous Ligament, and a small portion of the Radius externally; forms a Tendon which passes close to the last Muscle in a similar ligamentous sheath, to be inserted to the first phalanx of the Thumb, from the base to the Head: it frequently remits a Tendon to join the next, and has sometimes the appearance of a slip of the Extensor Ossis Metacarpi, as described by Winslow.

Use.

Use.—Implied in the name.

Extensor Minor Pollicis Manus.—*Alb.*

Extensor Phalangis Ultimi Pollicis.

ARISES acute tendinous and fleshy from the Ulna and interosseous Ligament, between the last and the Indicator; its Tendon passes through a sheath in a small groove on the head of the Radius, and is inserted into the base of the last phalanx of the Thumb, being frequently joined by a Tendon from the last-mentioned Muscle.

Use.—See the name.

Extensor Major Pollicis Manus.—*Alb.*

Extensor Pollicis Secundus of Winslow; who has very properly remarked that the two former extensors make but one Muscle, though usually described as two, on account of their distinct Tendons; which is generally true.

Abductor Pollicis.

ARISES anteriorly by a broad, tendinous, and fleshy beginning, from the Ligamentum Carpi Annulare, and Os Trapezium, and is inserted laterally tendinous, into the basis of the first phalanx of the Thumb.

Use.—To draw the Thumb backwards from the Fingers.

Abductor, Thenar Riolani.—*Dougl.*

Indicator.

ARISES acute and fleshy exterior to the last extensor of the Thumb, from the middle of the posterior surface of the Ulna ; its tendon passes under the same ligament with the Extensor Digitorum Communis, with that part of which destined for the Index, it proceeds to be inserted into the base of the second phalanx of the Index posteriorly.

Extensor Secundi Internodii Indicis Proprius, vulgo Indicator.—*Dougl.*

C H A P. XXII.

OF THE

FLEXORS and ADDUCTORS of the
POLLEX and INDEX.*Flexor Longus Pollicis.*

WHICH is analogous to the Profundus in the Fingers, arises acute and fleshy from the Radius immediately below its tubercle, and as far down as the Pronator Quadratus; and from the interosseous Ligament; it is pierced by the Arteria Interossea Interna, and Nervus Medianus of *Leber*: and sometimes it has a distinct fleshy slip from the internal condyle of the Os Humeri: it passes under the interior carpal Ligament with the Profundus, through a fold of the Flexor Brevis, and is confined by a sheath to the first phalanx as it proceeds to be inserted to the last of the Thumb, which it bends.

Flexor Tertii Internodii.—*Doug!*

Q 3

Opponens

Opponens Pollicis.

LIES under the Abductor, and arises fleshy from the Os Trapezium, and interior carpal Ligament; it is anteriorly tendinous and fleshy where inserted from the base to the head of the metacarpal bone of the Thumb.

Use.—To bring the Thumb inwards, and oppose it to the Fingers.

Flexor Primi Internodii.—*Dougl.*

Thenar.—*Wins.*

Flexor Brevis Pollicis.

ARISES from the Os Trapezoides, Magnum, and Unciforme; is folded into two portions forming a groove between for the Flexor Pollicis Longus; and is inserted into the Ossa Sesamoidea, base of the first phalanx of the Thumb, and into the Aponeurosis which invests the back of it.

Use.—To bend the Thumb towards the Palm; and in conjunction with the Extensors, to erect it.

Flexor Secundi Internodii.—*Dougl.*

N. B.

N. B. These two Muscles last described and the Abductor being in fact but one mass, can only be distinguished by separating them at their insertions.

Adductor Pollicis.

ARISES fleshy from the inferior half next the head of the metacarpal bone of the middle finger; from thence its fibres converge: to be inserted tendinous into the basis of the second bone of the Thumb at the side of the fingers, to which it pulls the Thumb.

Adductor ad Minimum Digitum.—D.

C H A P. XXIII.

OF THE
MUSCLES *proper to the* INDEX.

Indicator.

See above, page 172.

Abductor Indicis.

ARISES by a few fibres from the Os Trapezium, and from that half next the basis of the metacarpal bone of the Thumb, at the side of the fingers; and is inserted by a short Tendon, into the side of the base of the first phalanx of the Index next the Thumb.

Use.—To bring the fore-finger towards the thumb.

Semi-interosseus.—*Wins.*

C H A P. XXIV.

OF THE
MUSCLES *proper to the* AURICU-
LARIS, *or* LITTLE-FINGER.

Extensor Proprius Digiti Minimi.

See above, page 160.

Flexor Parvus Digiti Minimi Manus.

ARISES fleshy from the internal side of the Os Unciforme, and from the interior carpal ligament which joins with that bone. Is inserted, in conjunction with the Abductor, by a roundish Tendon into the basis of the first phalanx of this finger, externally.

Use.—To bend the little-finger, and assist the Abductor.

Abductor Minimi Digiti, Hypothenar
Riolani.—*Dougl.*

Abductor

Abductor Digiti Minimi Manns.

ARISES fleshy from the Os Pisiforme, and adjoining part of the interior carpal Ligament; is inserted into the base of the first phalanx of the Auricularis laterally and externally, and into the Tendon of the Extensor Proprius.

Use.—To extend the little-finger, but to bend the metacarpal bone of it.

Extensor Tertii Internodii Minimi Digiti.—*Dougl.*

Hypothenar Digiti Minimi.—*Wins.*

Adductor Digiti Minimi Manus.

ARISES fleshy from the thin edge of the hook of the Os Unciforme, and from that part of the interior ligament of the Wrist next it. Is inserted fleshy and a little tendinous into the outside of the metacarpal bone of the little-finger, from the base to the head.

Use.

Use.—To bend and bring this finger towards the rest.

Metacarpæus.—*Wins.*

Flexor Primi Internodii Minimi Digiti.

—*Dougl.*

Abductor Ossis Metacarpi Digiti Minimi.—*Alb.*

C H A P. XXV.

OF THE
INTEROSSEOUS MUSCLES.

THESE Muscles are denominated Interossei Interni, and Interossei Externi, from the circumstance of their bellies being conspicuous in the palm, or on the back of the Hand: but they are called Priores, and Posteriores, from situation.

Prior & Posterior Indicis, Prior Annularis & Auricularis are internal; the rest are external.

The Auricularis has no posterior or outside Muscle, the Abductor appearing to possess the situation and function of an interosseous Muscle.

Prior Indicis.

ARISES tendinous and fleshy from the base, at the thumb-side of the metacarpal bone of the Index; and is inserted at the same

same side, into the aponeurotic expansion from the Extensor Communis, which covers the posterior surfaces of the fingers.

Use.—To bring the Index towards the Thumb.

Extensor Tertii Internodii Indicis.—

Dougl.

Posterior Indicis.

ARISES tendinous and fleshy from the base and outside of the metacarpal bone which sustains the fore-finger; and is inserted into the outside of the tendinous expansion on the posterior part of the Index, which it extends obliquely.

First Interosseus.—*Dougl.*

Prior Medii.

ARISES posteriorly by two heads, from the base and side of the metacarpal bones of the fore and middle fingers next each other, but from the base of the latter internally :

R

nally; passes along the inside of the middle-finger, being conspicuous on both sides of the hand; and is inserted to the same side of the tendinous expansion on the back of the middle-finger, which it extends and draws inwards to the fore-finger.

Second Interosseus.—*Dougl.*

Posterior Medii.

ARISES by two heads from the bases and sides adjoining of the metacarpal bones of the middle and ring-fingers, and base of the former internally; runs along to be inserted into the outside of the tendinous expansion on the posterior part of the middle-finger.

Use.—To extend and draw the middle-finger outwards.

Third Interosseus.—*Dougl.*

Prior

Prior Annularis.

ARISES from the thumb-side of the metacarpal bone which sustains the ring-finger, and is inserted to the same side of the tendinous expansion on the back of the ring-finger, which it extends towards the thumb.

Fourth Interosseus.—*Dougl.*

Posterior Annularis.

ARISES by two heads from the bases and sides adjoining of the metacarpal bones of the ring and little-fingers; is inserted into the outside of the tendinous expansion on the posterior part of the ring-finger.

Use.—To extend and draw the ring-finger outwards.

Fifth Interosseus.—*Dougl.*

Prior, seu, Interosseus Auricularis.

ARISES from the base and thumb-side of the metacarpal bone of the little-finger, and by a tendinous filament from the Os Pisiforme. It is inserted to the thumb-side of the tendinous expansion of the little-finger, which it extends and pulls inwards to the little-finger.

Sixth Interosseus.—Dougl.

OF THE
MUSCLES *of the* INFERIOR EX-
TREMITY.

The Teguments of the Thigh may be divided perpendicularly from the Tuber of the Ischium, down below the inner condyle of the Femur, while the Body lies prone; and raised exteriorly over the outside of the Thigh, without prejudice to the Fascia Lata.

The first Muscles which present in this way, are,

(C H A P. XXV.)

T H E
FLEXORS *of the* LEG, *situated on the*
posterior part of the FEMUR.

And first, these which compose the Inner Hamstring the posterior of which is the

Semitendinosus.

ARISES tendinous and fleshy, in common with the long head of the Biceps,
R 3 from

from the posterior part of the tuber of the Ischium; and sends down a long tendon, which ends flat, below the head of the Tibia, where it is inserted into the inside of the ridge a little below its tubercle.

Use.—To bend the leg back, and a little inwards.

Seminervofus.—*Wins. & Dougl.*

This Muscle, the next, and the Sartorius, have a large Bursa.

THE interior Muscle of the Hamstring, is the

Semimembranosus.

ARISES tendinous from the upper and posterior part of the tuber of the Ischium, under the former, by a broad flat Tendon, which ends in a fleshy belly; between the Biceps and Semitendinosus it runs down the back of the Thigh; and is inserted tendinous into the superior and back part of the Tibia, where there is a Bursa Mucosa.

Use.—To bend the Leg, and bring it directly backwards.

THE

THE outer Hamstring consists of two Muscles also, which have obtained the name of one, viz.

Biceps Cruris.

ARISES by two distinct heads; the first, or long head, arises in common with the Semitendinosus, from the upper and posterior part of the tuberosity of the Ischium. The second and short head arises fleshy and acute from the Linea Aspera and Fascia Lata, a little below the termination of the Gluteus Maximus; grows broader as it descends to join the long head, a little below the external condyle of the Os Femoris; and forms the outer hamstring by a common Tendon which is inserted into the upper part of the head of the Fibula externally, where it has a Bursa Mucosa.

Use.—To bend the Leg.

N. B. The Fascia Lata should be raised anteriorly, and allowed to remain attached until all its connections are rendered evident.

C H A P. XXVI.

OF THE
EXTENSORS *of the* LEG, *situated anteriorly on the* FEMUR.*Rectus Cruris.*

ARISES fleshy from the inferior anterior spinous process of the Os Ilium, and tendinous from the dorsum of the Ilium, a little above the Acetabulum; from whence (a small Tendon passes over the capsular ligament, adhering firmly to it, and is inserted into the top of the Trochanter Major;) it runs down over the anterior part of the Cervix Femoris, the fibres meeting obliquely, like the plumage of a feather, at a Tendon in the middle, which is inserted into the upper part of the Patella; the Tendon is continued thin over the anterior surface of this bone, and terminates in a broad thick ligament, which is sent off from the inferior part of the Patella to be inserted into the tubercle of the Tibia.

Rectus,

Rectus, five Gracilis Anterior.—*Wins.*
 Rectus Tibiæ.—*Haller.*

Vastus Externus.

THE Vasti and Cruralis nearly surround the Femur; the Vastus Ext. arises from the exterior surface of the great Trochanter, from the whole Linea Aspera, and near half the bone anteriorly, being connected above with the Gluteus Maximus, and below separated from the short Muscle of the Biceps by the Fascia Lata, from which it also arises; descends obliquely to be inserted tendinous into the superior exterior edge of the Patella.

Use.—With the Gluteus Max. & Tensor Vaginæ Fem. it is congeneric in giving lateral motion to the limb: but with the Rectus, and the two following, it extends the Leg; in which movement the Patella operates as a Pulley on the Tibia, to which it is connected by a very strong ligament, which appears to be composed of fibres detached from the Tendons of all the extensors.

Vastus

Vastus Internus.

ARISES tendinous and fleshy from between the forepart of the Os Femoris and base of the Trochanter Minor, and from most of the inside of the Linea Aspera, by fibres which run obliquely forwards and downwards.

Inserted tendinous into the upper and inside of the Patella, continuing fleshy lower than the Vastus Externus.

Cruralis.

ARISES fleshy between both trochanters of the Os Femoris, but nearer to the Minor, firmly adheres to the forepart of the Os Femoris, and capsular ligament of the Knee.

Inserted tendinous into the upper part of the Patella, under the Rectus.

Use.—All four are congeneres in extending the Leg, in which the Patella supplies the office of a pulley.

N. B.

N. B. These three Muscles are firmly united in their substance from their origin to their infertion, and can be separated by the knife only. Behind the Tendons of these three Muscles there is a large Bursa.

C H A P. XXVII.

OF THE
 ABDUCTORS *of the* THIGH *and* LEG,
situated interiorly on the FEMUR.

Sartorius.

ARISES tendinous from the anterior superior spinous process of the Os Ilium, soon grows fleshy, runs down for some space upon the Rectus, and winding inwards over the Vastus Internus, and (about the middle of the Os Femoris,) over the Abductor Magnus of the Triceps, passes down between the Tendon of the same and that of the Gracilis; to be inserted tendinous into the tubercle of the Tibia interiorly, and above the Gracilis where there is a Bursa mucosa.

Use.—To move the Leg obliquely inwards, and bring one Leg and Thigh across the other.

N. B. The course of the Crural Artery is under this Muscle.

Pectineus.

Pectineus.

ARISES broad and fleshy, from the upper and anterior part of the Os Pubis or Pectinis, immediately over the Foramen Thyroideum. Is inserted into the interior and upper part of the Linea Aspera of the Os Femoris, a little below the Trochanter Minor, by a flat short Tendon.

Use.—To bring the Thigh upwards and inwards.

Adductor Longus Femoris.

ARISES by a roundish Tendon, from the upper and anterior part of the Os Pubis above the Pectineus, and next the Gracilis. Is inserted tendinous to a considerable space of the middle of the posterior part of the Linea Aspera.

Adductor Femoris Primus.—*Dougl.*

Tricipitis Musculus Primus.—*Wins.*

Triceps Anterior.—*Hal.*

Gracilis.

ARISES by a thin Tendon, from the Os Pubis near the Synchondrosis, but lower down; soon grows fleshy, and descending in a direct course by the inside of the Thigh; it is inserted tendinous into the head of the Tibia anteriorly and below the Sartorius.

Use.—To bend the Thigh and Leg inwards.

Gracilis Internus, sive Rectus Internus.
—*Wins.*

Adductor Brevis Femoris.

ARISES tendinous from the Os Pubis anteriorly, immediately under the origin of the Gracilis, and near the inferior part of the Synchondrosis: proceeds transversely to be inserted tendinous and fleshy, into the anterior and upper part of the Linea Aspera, from the Trochanter Minor, to the beginning of the insertion of the Adductor Longus

Longus; it is above continuous with the Quadratus.

Adductor Femoris Secundus.—*Dougl.*

Tricipitis Musculus Secundus.—*Wins.*

Triceps Medius.—*Hal.*

Adductor Magnus Femoris.

ARISES very broad immediately below the last, on the margin of the Os Pubis, from the Synchondrosis to the tuber of the Ischium, and from this also; the fibres descend obliquely, spreading wider, and are inserted into the whole Linea Aspera, with a fissure which leaves the upper part larger; the lower proceeds direct, to be inserted by a Tendon into the internal condyle of the Femur superiorly, a little above which the femoral Artery, by a spiral turn towards the Ham, perforates this Muscle.

Use of the three Adductors.—To bring the Thigh inwards and upwards, according to the different directions of their fibres.

All three Adductors are called Triceps
by Riolanus.

Adductor Femoris Tertius, cum quarto.
—*Dougl.*

Triceps Tertius.—*Wins.*

Triceps Magnus.—*Hal.*

C H A P. XXIX.

OF THE
FLEXORS of the LEG and FOOT,
situated posterically on the LEG.

Gemelli, seu Gastrocnemii.

ARISES by two distinct heads; one from the upper and back part of the internal condyle of the Os Femoris, and from that bone, a little above it, by separate tendinous beginnings. The other head arises tendinous from the upper and back part of the external condyle. A little below the joint, the bellies of both unite in a middle Tendon, which becomes broad, thin, and joins a little above the extremity of the Tibia with the Tendon of the following.

This Muscle has a large Bursa Mucosa at its upper part, near the internal Condyle, which adheres to the capsular Ligament.

Soleus.

HAS two origins ; the first from the upper and back part of the head of the Fibula, continues to receive some of its fleshy fibres from the posterior part of that bone, for some space below its head. The other origin begins from the posterior and upper part of the middle of the Tibia, and passes inwards along the inferior edge of the Popliteus ; the flesh within its Tendon runs down near as far as the extremity of the Tibia, a little above which the Tendons of both unite, and form a thick round chord, called Tendo Achillis ; which is inserted into the upper and posterior part of the Os Calcis, by the projection of which the Tendo Achillis is at a considerable distance from the Tibia ; and between it and the Tuber of the Os Calcis, is a Bursa Mucosa.

Use.—To extend the Foot, by bringing it backward, and downwards.

Gemellus & Soleus.—*Alb.*

Gastrocnemii & Solæus.—*Wins.*

Extensor Tarfi Suralis, vel Extensor Magnus.—*Dougl.*

Plantaris

Plantaris.

ARISES thin and fleshy, from the upper and back part of the external condyle of the Femur, near the inferior extremity of that bone, and adheres to the capsular Ligament in its descent: it passes obliquely inward along the second origin of the Soleus; and under the Gemellus sends off a long slender Tendon, between, and where the great extensors join Tendons; it then runs down by the inside of the Tendo Achillis, and is inserted into the inside of the posterior part of the Os Calcis, and capsular ligament, below the Tendo Achillis.

Use.—To assist the former, and to pull the ligament from between the bones.

Tibialis Gracilis, vulgo Plantaris.—*Win.*

Extensor Tarfi Minor, vulgo Plantaris.

Dougl.

This Muscle, though seldom, has been found wanting on both sides.

Popliteus.

Popliteus.

Is covered by an Aponeurosis, which when removed, shews the Muscle, which arising by a round Tendon, from the lower and back part of the external condyle of the Os Femoris; passes over the capsular ligament of the joint, firmly adheres to it, and part of the femilunar cartilage; then becomes fleshy, the fibres running obliquely inwards, to be inserted broad and thin, into a ridge at the upper and internal edge of the Tibia, a little below its Head.

Use. — To move the Leg obliquely outwards, and assist in bending it; also, to pull the ligament from between the bones.

THE Aponeurosis which invests the Thigh is extended, (joined by other aponeurotic Fibres) over the Leg; but is remarkably strong on the outside, and anteriorly; at the Ankle it is called the Carpal Ligament. The aponeurosis of the Sole is described with the Muscles of the Foot; and that of the Toes in treating of their Extensors.

C H A P. XXX.

OF THE EXTENSORS *of the* FOOT and FLEXORS *of the* TOES, *situated on* *the posterior part of the* LEG and FOOT.

THE Flexor Digitorum Longus & Brevis, the Flexor Acefforius, Flexor Hallucis, and Lumbricales Pedi, are so intimately connected *inter se*, that they form one complex system of congeneric Muscles; and should be therefore preserved in their relative situations, to afford a proper view of this combination,

Flexor

Flexor Longus Digitorum Pedis, seu Profundus Perforans.

ARISES by an acute Tendon, soon becoming fleshy, from the back part of the Tibia, some way below its head, near the entry of the Medullary Artery, and is continued down the inner edge of this bone, by short fleshy fibres, ending in its Tendon; also by tendinous and fleshy fibres, from the outer edge of the Tibia, and between this double order of fibres the Tibialis Posticus lies inclosed. Having passed under two annular ligaments, it then proceeds through a sinuosity at the inside of the Os Calcis, and, about the middle of the sole of the Foot, divides into four Tendons, which pass through the slits of the Perforatus, and, just before this division, receives from, and sometimes gives a small Tendon to that of the Flexor Hallucis Longus: the next Muscle is inserted into its Tendon just where it divides, and in its progress it passes over the Tendon of the Flex. Hal. Long. & Flex. Digitorum Longus, to be inserted into the extremities of the last phalanges of the four lesser toes; which they bend.

Flexor

*Flexor Longus Hallucis.**

ARISES acute, tendinous, and fleshy from the posterior part of the Fibula, some way below its head, is continued down the same bone, almost to its inferior extremity, by a double order of fleshy fibres; its Tendon passes under an annular ligament at the inner Ankle, in a groove of the Os Calcis, and is inserted into the last phalanx of the great Toe; sends a small Tendon to the Os Calcis, and a large one to the Flex. Digitorum Longus: it is in a great measure a second Flexor Dig. Longus, and I have seen it as much so as the real one.

Use.—To bend the last joint of this Toe.

Flexor Longus.—*Dougl.*

Fl. Long. Pol. Ped.—*Alb.*

* It is difficult to conceive why *Pollex*, a term strictly expressing a member of the Hand; could be construed into a term expressing a member of the Foot: the confusion arising from the sameness of name is evident, and as there is a precise Latin word for the name *Great Toe*, I make bold to recognize it without quoting farther reasons for so doing.

Tibialis

Tibialis Posticus.

ARISES narrow and fleshy from the fore and upper part of the Tibia, just under the process which joins it to the fibula; then piercing the upper part of the interosseous Ligament, continues its origin from the back part of the fibula next the Tibia, and from near one half of the upper part of the last named bone, as also, from the interosseous ligament; the fibres collect towards a middle Tendon, which becomes round, and passes in a groove behind the Malleolus Internus; to be inserted tendinous into the upper and inner part of the Os Naviculare, and is continued to the Os Cuneiforme Internum, and Medium; it also gives some tendinous filaments to the Os Calcis, Cuboides, and base of the metatarsal bone of the middle Toe.

Use.—To bring the Foot inwards and upwards.

Peroneus

Peroneus Longus.

ARISES tendinous and fleshy from the forepart of the head of the Perone, or Fibula; from the upper and external part of the same, where it begins to rise into a round edge; from the hollow between that and its anterior ridge, as far down as near its extremity, by a number of fleshy fibres, which pass outwards towards a Tendon that becomes long and round, passes through a channel in the inferior extremity of the fibula behind the outer Ankle, is reflected to the sinuosity of the Os Calcis, and runs in a groove in the Os Cuboides, under the Muscles of the sole of the Foot, to be inserted into the outside of the base of the metatarsal bone of the great Toe; it sends some tendinous fibres to the Os Cuneiforme Internum.

Use.—To move the Foot outwards, and extend it.

Peroneus Maximus, vulgo Peroneus Posterior.—*Winkl.*

Peroneus Primus, seu Posticus.—*Dougl.*

Peroneus Brevis.

ARISES acute and fleshy, from above the middle of the external part of the fibula; from the outer side of the anterior spine of the same; as also, from its round edge externally, the fibres proceed obliquely outwards to a Tendon on its external side; which becomes round, passes through a groove at the outer angle, under the same ligament with the preceding Muscle; and farther on it has a particular one of its own.

Inserted tendinous into the base of the metacarpal bone of the little toe externally.

Use.—To extend the Foot outwards.

Peroneus Medius, vulgo Peroneus Anticus.—*Winsl.*

Peroneus Secundus, seu Anticus.—*Dougl.*

Flexor Brevis Digitorum Pedis.

ARISES narrow and fleshy, from the inferior and anterior part of the tuberosity of the
the

the Os Calcis, between the abductors of the great and little toes; soon forms a thick fleshy belly, which sends off four Tendons, that split for the passage of the Flexor Longus. It lies under a very strong aponeurosis which arises from the Os Calcis, and covers the belly of the abductors with this, so intimately that it must be dissected off to shew the Muscles.

Inserted into the second phalanx of each of the four lesser toes, the tendon of the little toe having decussated the rest,

Use.—See name.

Perforatus, seu Sublimis.—*Dougl.*

Flexor Digitorum Accessorius.

ARISES thin and fleshy, from most part of the sinuosity at the inside of the tuber of the Os Calcis, which origin is continued forward for some space on the same bone; also by a thin tendinous beginning, behind the tuberosity of the Os Calcis externally; soon becomes fleshy, and is inserted into the tendon of the Flexor Longus, just at its division into four.

Use.—To assist the former.

Lumbricales Pedis.

ARISES by four tendinous and fleshy beginnings, from the tendon of the Flexor Profundus, just before its division, and near the insertion of the Flexor Accessorius into it, is inserted by four slender Tendons into the inside of the first phalanx of the four lesser toes, and into the tendinous expansion of the Extensors on the upper part of the Toes.

Use.—To assist in bending the toes, and to draw them inwards.

Transversus Pedis.

ARISES tendinous from the head of the metatarsal bone of the great toe, and from the internal Os Sefamoidæum of the first joint, adhering to the Adductor Pollicis.

Inserted tendinous into the outside of the head of the metatarsal bone of the little toe.

Use.—To bring the little toe towards the great one.

Flexor

Flexor Brevis Hallucis.

ARISES tendinous from the under and forepart of the Os Calcis where it joins the Os Cuboides, and from the Os Cuneiforme Externum and Naviculare, is inseparably united by its fleshy belly with the Abductor and Adductor Hallucis.

Inserted into the external Os Sesamoidæum and base of the first phalanx of the great toe, which it bends.

Flexor Brevis Pollicis Pedis.—*Alb.*

Abductor Hallucis.

ARISES fleshy from the inside of the base of the tuber of the Os Calcis, which forms the heel, tendinous from the same bone where it joins with the Os Naviculare, and from the annular ligament of the ankle.

Inserted tendinous into the internal Os Sesamoidæum, and base of the first phalanx of the great toe.

Use.—To pull the great toe from the rest.

Abductor Pol. Pedis.—*Alb.*

Thenar.—*Wins.*

Adductor Hallucis.

ARISES by one long thin tendinous head from the tuber of the Os Calcis, under the Flexor Accessorius; from the Os Cuboides by a short fleshy head, the Peroneus Longus passing between them, and under the long head; from the Os Cuneiforme Externum, near the insertion of the Peronæus Longus, (from which it receives a twig;) and from the base of the metatarsal bone of the second toe.

Inserted into the external Os Sesamoidium, and base of the metatarsal bone of the great toe, which it brings nearer to the rest.

Adductor Pollicis Pedis.—*Alb.*

Antithenar.—*Wins.*

Abductor

Abductor Digiti Minimi Pedis.

ARISES tendinous and fleshy, from the semicircular edge of a cavity on the inferior and anterior part of the tuberosity of the Os Calcis, from the base of the metatarsal bone of the little toe; and is inserted into the base of the first phalanx of the little toe externally.

Use.—To draw the little toe outwards from the rest.

Parathenar Major, & Metatarsæus.—

Wins.

Flexor Brevis Digiti Minimi Pedis.

ARISES tendinous from the Os Cuboides, anterior and near to the Sulcus, for lodging the tendon of the Peroneus Longus; fleshy from the outside of the metatarsal bone of the little toe, below its protuberant part.

Inserted into the outside and head of the metatarsal bone, and base of the first phalanx of the little toe.

Use.—To bend this toe.

Parathenar Minor.—*Wins.*

CHAP.

C H A P. XXXI.

OF THE

FLEXORS *of the* FOOT, *and* **EX-**
TENSORS *of the* TOES, *situated on*
the anterior part of the LEG *and*
 FOOT.

Extensor Longus Digitorum Pedis.

ARISES tendinous and fleshy from the upper and outer part of the head of the fibula where it joins with the Tibia; from the tendinous fascia, which covers the upper and outside of the Leg, by a number of fleshy fibres; and tendinous and fleshy, from almost the whole length of the anterior spine of the fibula, where it is inseparable from the Peroneus Tertius. It splits into two, and subdivides into four round tendons, under the Ligamentum Tarsi Annulare, which are inserted by aponeuroses into the base of the first phalanx of each of the four small toes, and are expanded

panded over the backs of the toes, as far as the bases of the last phalanges.

Use.—Expressed in the name.

Extensor Longus.—*Dougl.*

Peroneus Tertius.

ARISES from the middle of the fibula, continually down to near its inferior extremity, sends its fleshy fibres forward to a tendon, which passes under the annular ligament, and is inserted into the base of the metatarsal bone of the little toe.

Use.—To assist in extending the foot.

Tibialis Anticus.

ARISES tendinous and fleshy from the middle of that process of the tibia, to which the fibula is connected above; descends fleshy on the outside of the tibia, from which, and the upper part of the interosseous ligament, it receives a number of distinct fleshy fibres; near the extremity of the

the tibia it sends off a round tendon, which passes under the Ligamentum Tarfi Annulare near the Malleolus Internus.

Inserted tendinous to the inside of the Os Cuneiforme Internum, and base of the great toe.

Use.—To bend the foot, by drawing it upwards.

Extensor Proprius Hallucis.

ARISES acute, tendinous and fleshy, some way below the head, and anterior part of the fibula, along which it passes nearly to its extremity, and by a number of fleshy fibres, towards an exterior tendon. It is inserted into the bases of the first and last phalanges of the great toe, by two distinct tendons; sometimes into the last, by one only.

Use.—See name.

Extensor Proprius Pollicis Pedis.—Alb.

Extensor Longus.—Doug.

Extensor

Extensor Brevis Digitorum Pedis.

ARISES fleshy and tendinous, from the superior part of the Os Calcis, forms a fleshy belly, divisible into four portions, which send off an equal number of tendons that pass over the upper part of the foot, and under the Tendons of the last, to be inserted into the tendinous expansion of the Extensor Longus, which covers the small toes, except the little one; and also, into the tendinous expansion from the Extensor Hallucis which covers the back of the great toe.

Use.—See name.

Extensor Brevis.—*Dougl.*

Interossei Interni Pedis.

Of the seven interosseous muscles of the foot, three are inferior and conspicuous on the sole, four superior and conspicuous on the back of the foot; the former are the next to the Hallux, viz. the interior of the third, of the fourth, and of the fifth toes: they

they arise from the bases of the metatarsal bones at the same side, and terminate by slender tendons on the bases of the first phalanges of the toes to which they appertain; they are also attached to the aponeurotic sheaths of the toes, in common with the tendons of the Extensor Longus and Lumbricales.

Interossei Externi Pedis.

ARE the interior and exterior muscles of the second toe, the exterior of the third, and of the fourth. The three exterior muscles are bicipital, a head arising from each of the adjoining metatarsal bones, the fibres meet at acute angles and detach tendons in all respect similar to those of the former.

The one interior Muscle, arises from the same side of the metatarsal bone of the second toe, at which it is placed; receives inferiorly a small tendon from the Peroneus Longus, and is inserted as the others.

Use.—They are said to be extensors; they are also tensors of the aponeurotic sheaths of the toes.

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